

Public Utilities

Volume 68 No. 11



November 23, 1961

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PUBLIC UTILITIES AND PEOPLE—WITHIN THE WORKERS

By James W. Carpenter and Robert T. Livingston

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Should U. S. Utilities Take Their Security Sales Talks to Europe?

By Stephen E. Taylor

« »

Rigging Your Own Quiz Programs

By James H. Collins

« »

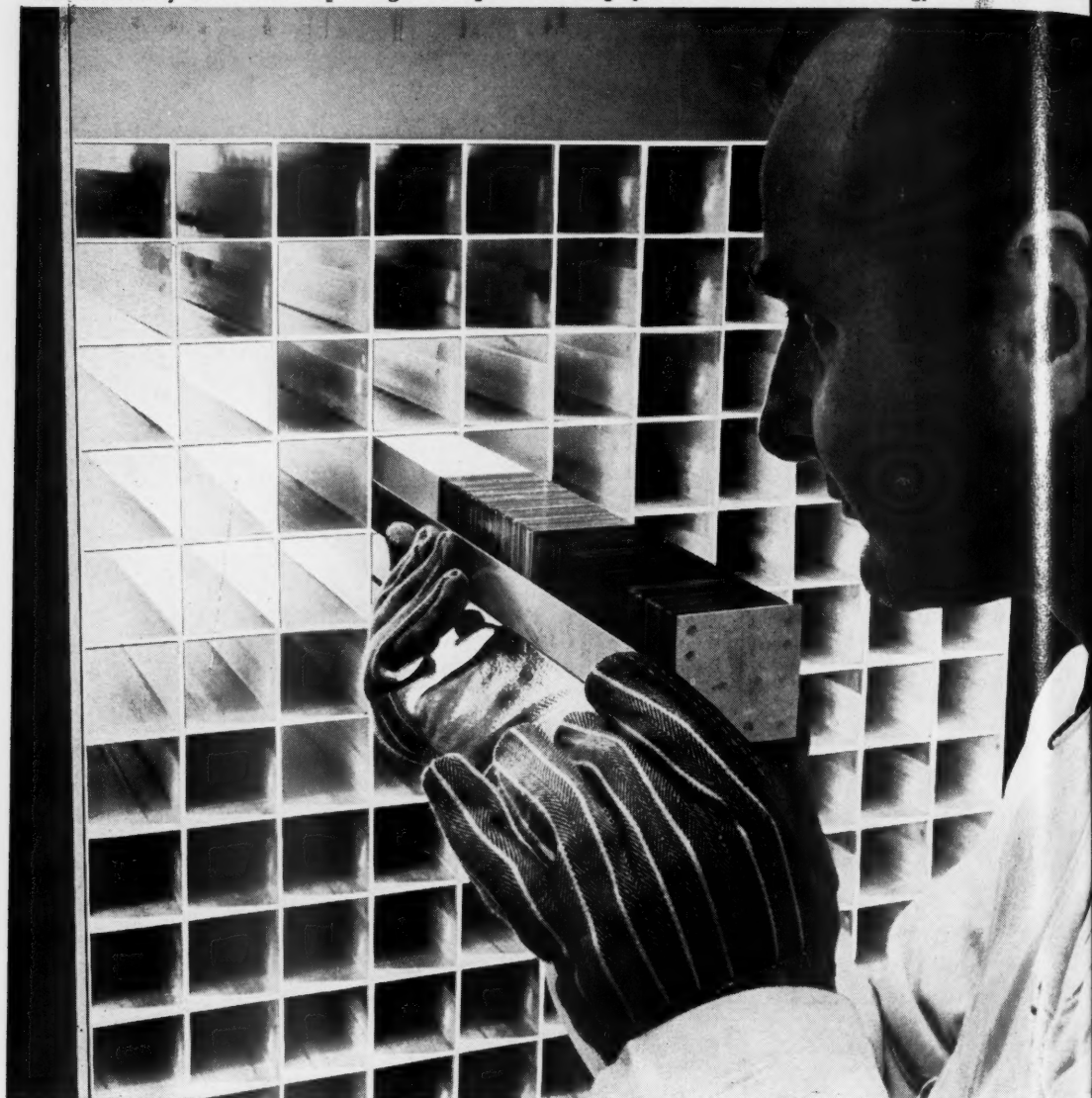
An Analysis of the FCC Membership

By Lawrence W. Lichty

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Purposes of Regulation Explained

"Critical assembly" machine now operating at AI is part of AETR project for Southwest Atomic Energy Associates



The Peaceful Atom
Needed in ten years:
100% increase in
world power output

In the dynamic decade ahead, the demand for electrical power will be expanding faster than ever before. To meet this vastly increased demand, new and highly advanced concepts are needed. A promising nuclear concept is the Advanced Epithermal Thorium Reactor. The AETR is under active study today by Atomics International for the Southwest Atomic Energy Associates, fifteen investor-owned utility companies. Two other nuclear concepts pioneered by Atomics International are being applied in construction of power stations in Piquette, Ohio, and Hallam, Nebraska, as part of Atomic Energy Commission programs. These are some of the ways AI is helping the power-producing companies of the world double the supply of electricity in the next ten years.

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Public Utilities

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NUMBER 11



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The author tells about a new type of luncheon table and investor-financial group meeting for European investors—in Europe.

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Some interesting conclusions about education, political, and other qualifications of the FCC members.

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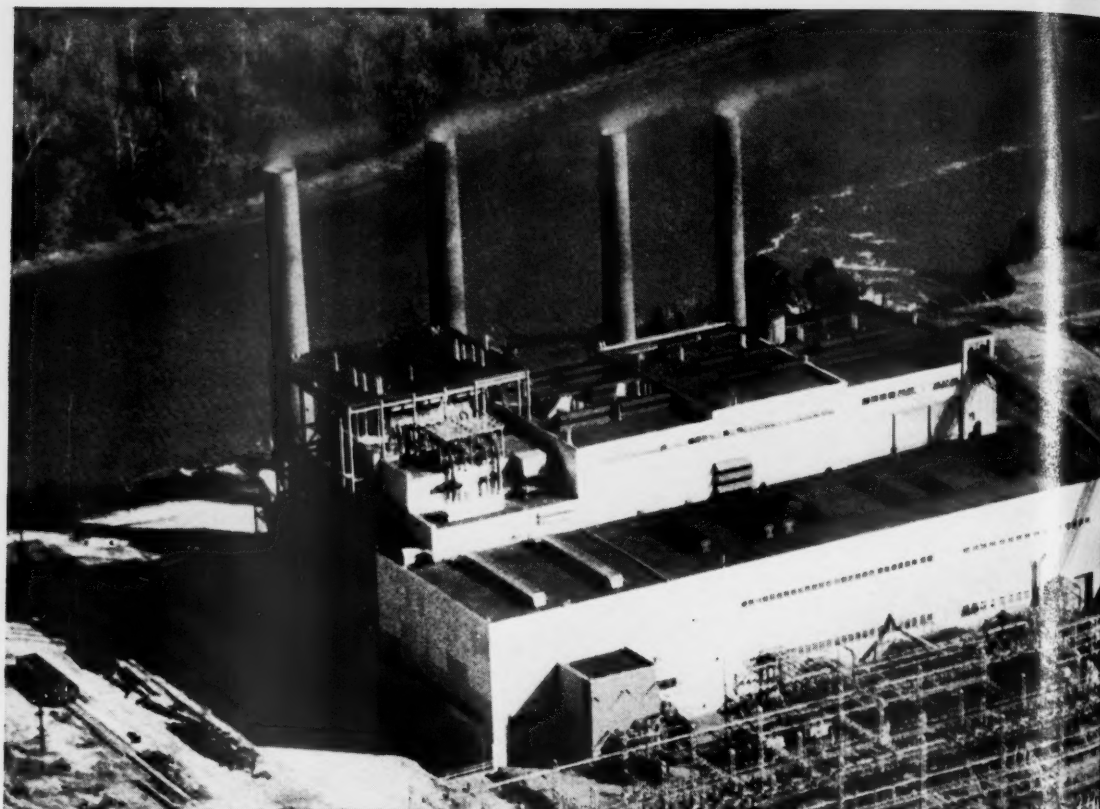
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VEPCO's Chesterfield Station to get system

Utility Power Stations which have C-E Controlled Circulation Steam Generators installed or on order:

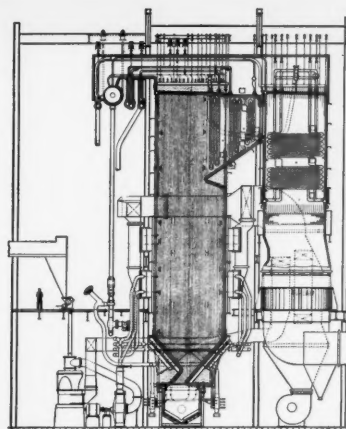
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Aerial
Station
Gener
2,950
will b

Types of



Aerial view of Virginia Electric Power Company's Chesterfield Station where a 325,000 kw C-E Controlled Circulation Steam Generator will be added. Design pressure of this unit is 2,950 psi. Total capacity of this station with the new unit will be 740,000 kw.



Elevation of the first C-E Controlled Circulation unit placed in service at Chesterfield in 1952. This 100,000 kw unit produces 750,000 lbs of steam per hour.

Background of The Controlled Circulation Steam Generator

In 1942, the Montaup Electric Company installed a C-E Controlled Circulation Steam Generator in its Somerset, Mass., Station. Following years of extensive study and test at Somerset, the generator was offered as a fully developed design in 1950. Shortly thereafter, the Virginia Electric & Power Company ordered the first unit. It was installed at VEPCO's Chesterfield Station and serves a 100,000 kw turbine-generator. Stone & Webster Engineering Corporation, consulting engineers for the installation at Montaup, also served as consultants for the Chesterfield installation. Before year-end 1950, several other large utilities had placed orders and the trend to Controlled Circulation and higher pressures was soon underway.

10th Controlled Circulation Steam Generator

In 1950, the C-E Controlled Circulation Steam Generator was made available to the utility industry as a fully developed and proven design. The first unit, purchased by the Virginia Electric & Power Company, was installed in VEPCO's Chesterfield Station and was placed in service in November, 1952. This installation marked the beginning of a new era in steam power practice. Now, nine years later, the VEPCO System has seven Controlled Circulation units "on the line" in four of its seven generating stations, has two additional units under construction and, most recently, ordered its tenth unit which, like the first, will be installed

at Chesterfield. The total capacity represented by these ten units is approximately 1,700,000 kilowatts.

As the list at left indicates, the acceptance accorded the C-E Controlled Circulation Steam Generator has been industry-wide. Not revealed by the list is the world-wide acceptance it has achieved. Today, Controlled Circulation units are in service or under construction for electric utility plants in Australia, Canada, England, France, Italy and Japan. Total world-wide Controlled Circulation capacity ordered to date — about 43,000,000 kilowatts. Capacities range from 75,000 kw to 1,000,000 kw.

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Pages with the Editors

It is not often in this day of unbalanced budgets and expanding federal adventures in the electric power field that the rôle of the electric power industry as an extraordinarily productive taxpayer is fully recognized. Electric utility companies, generally, can take some satisfaction from a recent speech made by North Carolina's senior U. S. Senator, Sam J. Ervin, Jr., at a ground-breaking ceremony near Asheville, North Carolina, where a new 250,000-horsepower steam plant will be built for the Carolina Power & Light Company.

SENATOR Ervin, who shared the speaker's platform with U. S. Representative Roy A. Taylor of the same state, and Carolina Power & Light's President Louis V. Sutton, who sat at the controls of a giant bulldozer, paid tribute to the electric industry generally as "American free enterprise in the finest sense of the term." He said that it is impossible to "overmagnify the importance of this industry to the economic life and the social life of our country." He recalled the familiar story of Michael Faraday's famous reply to the skeptical question of British Prime Minister Gladstone back in 1831 as to what electricity was good for. Faraday is reported to have said, "Why, sir, one day you will tax it."



ROBERT T. LIVINGSTON



STEPHEN E. TAYLOR

"THAT prophecy of Faraday's has come true with a vengeance," the Senator added, citing the fact that the electric industry is now the nation's largest taxpayer, paying more than \$2 billion into local, state, and federal tax coffers each year. "I might add at this point that the Carolina Power & Light Company can appreciate the fact that this prophecy has come true, because it alone pays approximately \$20 million annually . . . and of this sum, approximately \$400,000 are paid to local and county government in the Asheville area of North Carolina.

"It's almost impossible to readily comprehend the service being rendered to the American people by Carolina Power & Light Company and the other investor-owned companies," Ervin said. He explained that these companies are owned by 4 million stockholders and 175 million other Americans who have "an indirect stake in what we have come to call 'private power' by virtue of their interests in insurance companies, banks, pension funds, and other groups which invest in electric company securities.

"THIS industry has the largest capital investment of any American industry; namely, \$46 billion," the Senator continued. "It employs 300,000

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Americans in its operations and invests approximately \$4 billion a year in new plants and equipment. . . ."

Projecting the industry's future, Ervin said that by 1890 the American work force will increase 40 per cent, households 34 per cent, and the nation's population will increase by 58 million.

"It is interesting to note what effect the constantly expanding use of electric power will have: First, by 1980 the investor-owned electric utilities will be spending approximately \$12 billion a year for new plants and new equipment, and by 1980 these companies will have a total investment in such plants and equipment of approximately \$168 billion."

THE opening article in this issue is the fourth and concluding instalment of a series on public utilities and the people, written jointly by JAMES W. CARPENTER, retired vice president of the Long Island Lighting Company, and ROBERT T. LIVINGSTON, professor of industrial management engineering at Columbia University in New York city. Personal sketches of Mr. CARPENTER and PROFESSOR LIVINGSTON have already been given in these pages with the earlier instalments. Suffice it to say here that Mr. CARPENTER, a native of Pennsylvania and a graduate of its State University (BS, EE), entered the electric industry after World War I service with the U. S. Army. He retired in 1957. PROFESSOR LIVINGSTON, a native of



JAMES W. CARPENTER



LAWRENCE W. LICHTY

Indianapolis who has made a career of engineering education, was the founder and director of the annual Utility Management Workshop and Industrial Research Conference.

* * * *

LAWRENCE W. LICHTY, whose article on the Federal Communications Commission membership begins on page 828, was prompted to make an investigation into this regulatory phase while writing a postgraduate thesis and doing research work from material which has appeared from time to time in this magazine. Mr. LICHTY is a graduate of Ohio State University (MA, '61) and the University of Southern California (AB, '59). He is presently a research assistant with the Ohio State University Department of Speech.

* * * *

STEPHEN E. TAYLOR, whose article about the unusual steps taken by Northern Illinois Gas Company to bring its security sales talk direct to investor groups in Europe, is assistant secretary of that company. He started his utility career forty-three years ago and served in various positions in the secretary's office of Commonwealth Edison Company in Chicago before joining Northern Illinois in 1954.

THE next number of this magazine will be out December 7th.

The Editors



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HYDRO



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Coming in the Next Issue...

DECEMBER 7, 1961, ISSUE

THE STATUS OF POWER SUPPLY IN MAINE

A survey of the Pine Tree state's electric power development in recent decades, as well as a look into what the future holds, especially in respect to the tidal power project at Passamaquoddy Bay, is the subject of this interesting article by Lincoln Smith, New York University professor, author, and member of the Maine Governor's Committee on Passamaquoddy Development. Dr. Smith traces the changes in Maine's power situation in the last ten years and ties in these changes with legislative and economic policies and developments.

WHERE IS THE MONEY COMING FROM?

A Midwestern insurance company executive, Fergus J. McDiarmid, explains in this article the future sources of public utility financing and the important part these will play in the growth and expansion of the industry in the decades to come. The author predicts trends which financing will be required to take in the next ten years and how the changing face of the utility business will require a shift in current financing policies. Based on a survey of utility financing methods in the past, Mr. McDiarmid draws his conclusions on how utility management must adjust its concepts of raising moneys to the rapidly changing American utility picture.

IS REGULATION KEEPING UP WITH THE TIMES?

A look at the regulation of investor-owned utilities, from the viewpoint of a state official intimately associated with state regulatory policies and decisions, is contained in this article. The author, Lloyd G. Hammel, assistant attorney general of the state of Oregon and chief counsel for the state public utility commissioner, evaluates the effectiveness of modern-day utility regulation, and assesses what regulation must accomplish to fulfill the statutory and public expectations. The article discusses local, state, and federal regulatory proceedings and presents recommendations and suggestions on the future of utility regulation in this nation.

AND IN ADDITION . . . Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.

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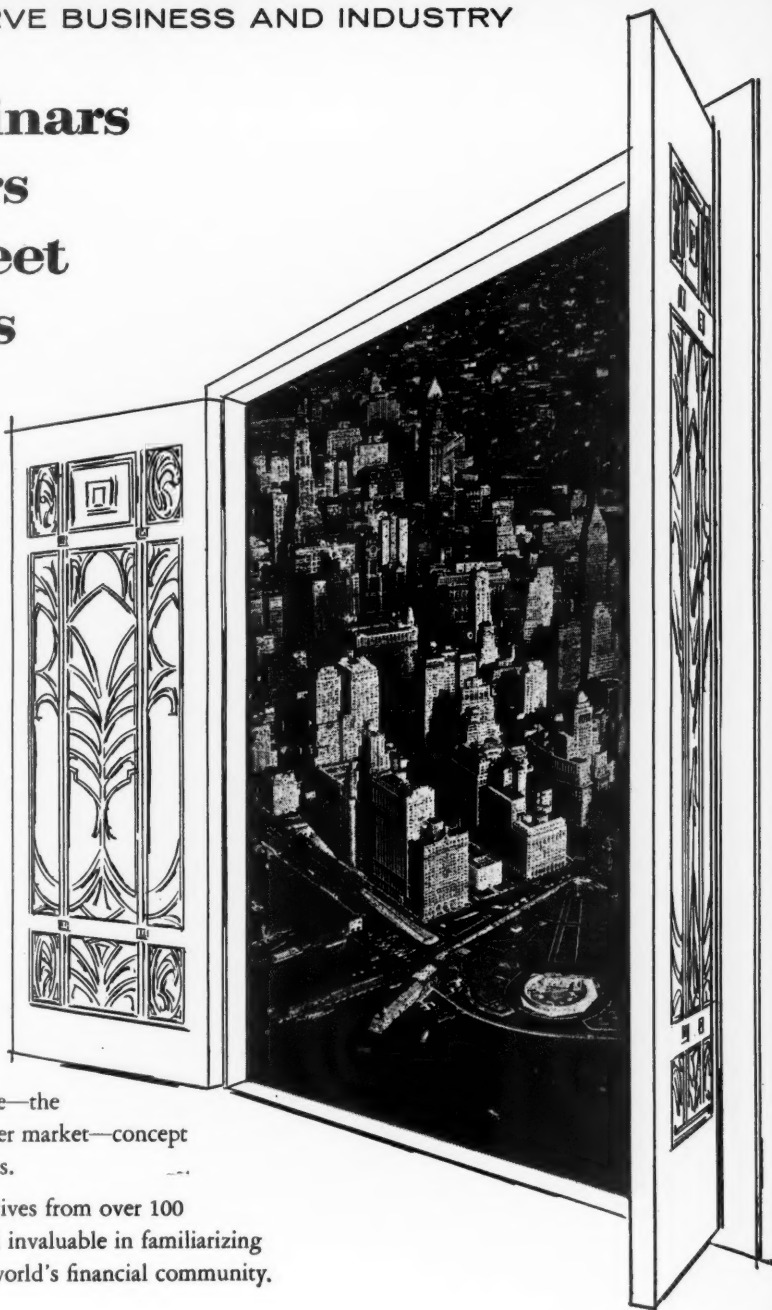
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One Wall Street, Irving specialists are ready with new and sound approaches—with seminars, for example, designed to provide the financial insight demanded by today's rapidly growing Utilities. In addition to meetings with Irving specialists, these seminars offer contact with experts from the many firms of the Wall Street community. These are the experts who actually make the Irving seminars possible.

Here's a brief list of some of the topics Irving opens for Public Utility executives during a Seminar week:

Wide view of rating agencies—explanation of the functions of the investment banker—operations of the stock exchange—the broker and dealer and the over-the-counter market—concept of regulation—cost-of-capital—and others.

It goes a typical week that utility executives from over 100 companies across the country have found invaluable in familiarizing themselves with the ins and outs of the world's financial community.



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Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

CARL MCGOWAN
*General counsel, Chicago &
North Western Railway.*

"Most of the time our lights are hidden under literally bushels of words, inexpertly put together."

NEWTON MINOW
*Chairman, Federal Communications
Commission.*

"It's time you creative television professionals lit a few million candles to take our children out of the darkness."

EDWARD R. MURROW
*Director, United States
Information Agency.*

"In this world there are no absolute standards of truth. What is one man's truth is another man's falsehood."

JAMES A. FARLEY
Former Postmaster General.

"By and large businessmen just don't understand the rules of the art of politics. . . . The doctrine that half a loaf is better than none is fundamental."

JAMES K. CARR
Under Secretary of the Interior.

"In the light of our past experience, I suggest we think long and hard as a nation before we start dulling the cutting edge of competition among the sources of energy."

SIR GERALD BEADLE
*Retired president, British
Broadcasting Corporation.*

"Television is at its best when it is doing something that cannot be done any other way; that is, when it is a window on the world, letting you see things as they happen."

HARRY M. JACKSON
U. S. Senator from Washington.

"For the first time in history a democracy is able to mobilize its forces without a hot war going on. The threat is not Berlin alone, and it may continue for a long time."

LYNDON B. JOHNSON
*Vice President of the
United States.*

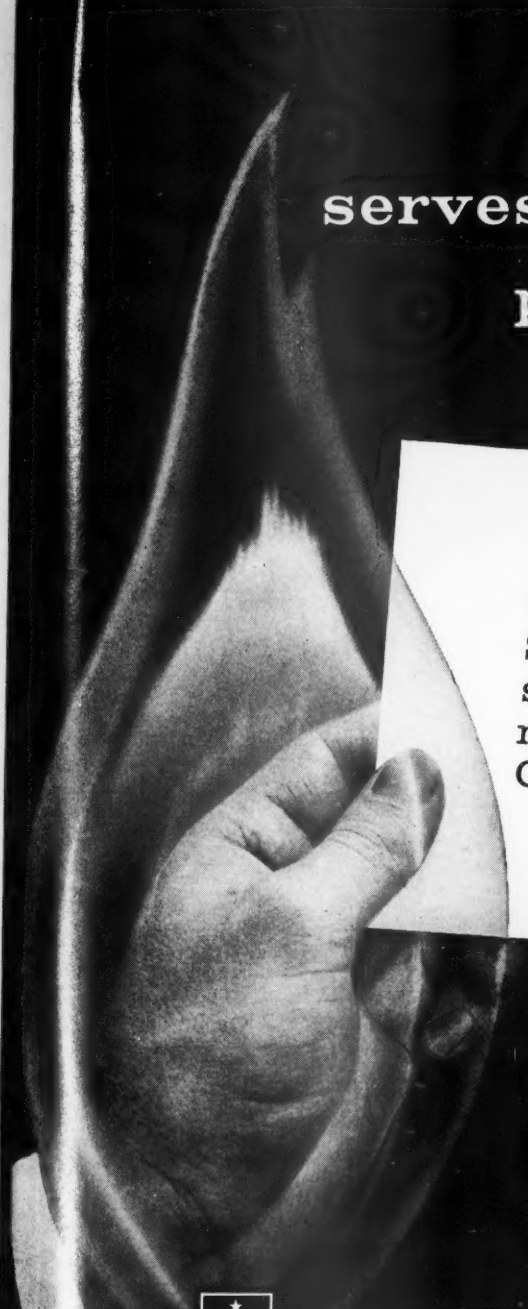
"No one person, no one company, no one government agency has monopoly on the competence, the missions, or the requirements for the space program. It is and it must continue to be a national job."

DWIGHT D. EISENHOWER
*Former President of the
United States.*

"We are a people who are vibrant, vital, courageous, and intelligent. I see no reason to put our heads between our knees and be weeping all the time. We have to look into ourselves and our hearts, and not give way just because a bully is threatening us."

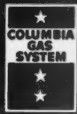
ALLEN B. DUMONT
Television pioneer.

"Instead of threatening the [television] industry as did Mr. Minow . . . I suggest he start swinging an ax within the FCC to grind out the necessary channels to add a fourth, noncommercial, government-sponsored network which will reach every possible community in the United States."



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Utilities Events Calendar

CHECK THESE DATES:

Nov. 24-25—Advertising Federation of America, eighth district, will hold convention, St. Paul, Minn.

Nov. 26-28—Florida Telephone Association will hold annual convention, Miami Beach, Fla.

Nov. 26-Dec. 1—American Society of Mechanical Engineers will hold winter annual meeting, New York, N. Y.

Nov. 27-28—Edison Electric Institute, Commercial Lighting Committee, will hold meeting, Rochester, N. Y.

Nov. 27-28—Pacific Coast Electrical Association, Administrative Services Section, will hold meeting, Santa Barbara, Cal.

Nov. 27-29—American Gas Association, Accounting Section, will hold electronics seminar, Cleveland, Ohio.

Nov. 27-29—National Electrical Manufacturers Association, Generation, Transmission, and Distribution Equipment Division, will hold meeting, Washington, D. C.

Nov. 27-Dec. 1—National Association of Corrosion Engineers will hold southeast regional conference and Florida general conference short course, Miami, Fla.

Nov. 29—New England Gas Association, Street Department Supervisors Group, will hold meeting, Marlboro Country Club, Mass.

Nov. 29-Dec. 1—Annual Wire and Cable Symposium will be held, Asbury Park, N. J.

Nov. 30-Dec. 1—Edison Electric Institute, Electric Space Heating and Air Conditioning Committee, will hold meeting, Pittsburgh, Pa.

Nov. 30-Dec. 1—Institute of Radio Engineers will hold national conference on vehicular communications, Minneapolis, Minn.

Nov. 30-Dec. 1—Public Utilities Advertising Association, Region 2, will hold meeting, Hershey, Pa.

Dec. 2-5—Annual International Visual Communications Congress will be held, Los Angeles, Cal.

Dec. 3-7—National Association of Home Builders will hold meeting, Chicago, Ill.

Dec. 4-5—Edison Electric Institute, Residential Electric Heating and Air Conditioning Committee, will hold meeting, Chicago, Ill.

Dec. 4-5—Florida Natural Gas Association will hold annual sales conference, Sarasota, Fla.

Dec. 4-5—North Carolina Telephone Association will hold annual convention, Pinehurst, N. C.

Dec. 4-6—Interstate Oil Compact Commission will hold annual meeting, Denver, Colo.

Dec. 5-7—Edison Electric Institute, Street and Highway Lighting Committee, will hold meeting, Tampa, Fla.

Dec. 7—American Waterway Operators, Inc., will hold annual meeting, Washington, D. C.

Dec. 12-15—American Society of Agricultural Engineers will hold winter meeting, Chicago, Ill.

Dec. 13-14—Ohio Valley Transportation Advisory Board will hold meeting, Cincinnati, Ohio.

Dec. 14—Air Transport Association of America will hold membership meeting, Washington, D. C.



Courtesy, Texas Gas Transmission Corporation

Gas Pipeline—1871

This sketch shows the construction of an early pipeline to deliver natural gas to Rochester, New York. White pile logs, bored with an eight-inch hole, were used as pipe on the 25-mile route.

Public Utilities

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NUMBER 11



Public Utilities and People— *Within the Workers*

This concluding piece of a four-installment series deals with the employee. It is commonplace to say that each such employee is the whole company personified to everyone he meets. But what is that in terms of his own training, his own outlook, and the practical investment of time and money to develop each? These authors give some practical answers on the basis of modern operations and practices.

By JAMES W. CARPENTER and ROBERT T. LIVINGSTON*

TODAY'S utility manager is a busy man; when he seeks to rest from the treadmill of keeping up with the latest technological developments in atomic fusion, computer apparatus, satellite reflection, governmental administration, gas cells, and other progress his only escape is into the squirrel cage of sociological practices in the employing, training, developing, and advancing of the

people who are in his command. Machines and methods and more revenues are all part of the task of the manager. He must also be concerned with the human relationships of his enterprise with customers, government, shareholders, and the community at large, but the employees are the most important of the living elements that pertain to his business.

These are the folks who are the real embodiment of the utility company to the public individually and at large. It is through them, primarily, that the corporate body, made into a person by the

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state, becomes a breathing, growing integral part of the populace. It is only through the continuous and intelligent use of the parallel transmission lines of modern machinery and enthusiastic workers that the manager performs successfully in providing full public service.

THE present-day attention to these important people, the employees, is part of the emphasis of the modern corporation upon its social duty. In this performance there are two distinct factors, and it is the successful mix or amalgam of these that achieves the maximum of all around benefit. These elements are:

Industrial Relations

Technical

Conditions of work, terms, etc.

Those things which apply to everybody without favoritism

People as men and women workers

Discipline

Rights, authority, and responsibility

Employee Relations

Personal

Attitude and interaction

Those things which have to do with people as individuals and recognized as such

Motivation

Help, interest, and contributions

We shall deal in this writing with the personal factors. In bringing about the maximum of mutual confidence in these relationships, there has been a tremendous change in the concept of a job with a utility company. No longer is the power plant fireman or the gas street laborer hired on a day-to-day basis from a labor pool of unemployed clustered around the

hiring office like dock workers at shape up; no longer is the telephone lineman or the office auditor a floater drifting across country like an old-time printer.

THE present-day employee is selected with some care by those utility companies which recognize the large investment to be made in each new hand and the value of inducting the newcomer into a lifetime affiliation. This change in the process of employing has come about through the gradual realization that permanent, well-paid, and contented people in a company are the means to better and more profitable conduct of a business. Competition from other industries and employers has also played its part in bringing about the present practice.

Still, there can be a great deal of difference among public service companies. It does not show in the kilowatts or the cubic feet or the telephone calls but it can be readily observed among the people of the company, the employees. While it is conventional to describe the utility business as noncompetitive, it is not so to the electric man in a city where there is a modern gas company. The statement is not endorsed by the gas man where there is an oil company that is on its toes.

MOREOVER, regardless of product competition, every privately owned utility is in a highly competitive race with a very powerful opponent—the government, be it town, city, district, authority, or what not. The day is past, if it ever existed, when the utility and utility men could relax and take it easy because there was no competitor—cutting prices, offering bargains at less than cost, and breathing down their necks. Today these com-

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panies are in a situation that involves both rivalry and drama. As far as the general customer is concerned, it is impossible for him to identify the energy he uses whether it was supplied by his local privately owned utility or by the federal government. Surveys have shown that in a very large proportion of cases he does not know who supplied him, and, for that matter, why should he care! In that situation public service companies must follow the old advertising slogan:

"Something Extra Is Added,"

and that something extra is the personalization of service, identification with the community and the customer—which can only be supplied by the employees, all the employees, not just in their working hours but in all their lives. The achievement has to be more than just adequate service, something that is expected even from a publicly owned operation; it has to be friendly, thoughtful, constantly improving performance by them on behalf of the company and their intelligent, cooperative conduct as citizens of the community.

Importance of Company Morale

REDUCED to the simplest of terms every employee of a utility is the actual company itself to some people, numbered in certain cases on the fingers of a hand and in others in the hundreds and thousands of a district, a city, or a state. This reflection of a fine company through that single employee is lighted primarily by company morale. No one has ever adequately defined or isolated morale, something that is as obvious by its absence as by its presence. It is somehow or other not only a sense of belonging but also a sense of contributing to something that is

worth while. It is more than being a member of the team playing it soft and obediently so no questions will be asked, or acting as a good little boy in one happy family where Papa knows best.

As good an analogy of it as can be found may be the answer that was given years ago in a Sunday night college bull session. When an aspiring atheist scornfully called for an explanation of the Holy Ghost in the ascription of "Father, Son, and Holy Ghost," the most unlikely fellow in the room to answer, a pragmatic mechanical engineering undergraduate, responded, "The Holy Ghost is the Christian's college spirit." This spirit in the utility business is a mutual feeling that the employee can trust and count on the company and the other people in the company just as the company and they rely upon the employee. Both company and employees are interlocked in concentration on full performance.

IN that unity the employee is entitled to and the company is well served by a written statement of policy carried



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through in practice as in the Biblical admonition that faith must have works to keep alive. Something like the following forthright expression puts the belief of the company before its staff:

TO THE MEMBERS OF OUR ORGANIZATION

We believe in sound employee relations as a practical means of rendering full service, of meeting our corporate responsibility, and of generating good feeling toward us among our customers.

We believe mutual understanding is the means by which we shall all succeed. We expect our executives and supervisors to be courageous, calm, and careful in leadership, co-operative toward subordinates and their suggestions. We offer each employee full understanding of his dignity as a person and as a unit in the community. We cherish the pride which our employees establish in their own performances, in their fellow workers, and in the overall make-up of our company.

We maintain that each employee finds great inner satisfaction in having and holding his job, in working vigorously at his task, in being paid adequately, and in being assured of opportunity to advance.

We wish to be careful in the selection of new employees and in their placing, training, and development. Every person is entitled to know periodically of his progress.

We subscribe to collective bargaining as a legal and desirable means of fixing general terms and conditions of work and pay. We aim to maintain standards that compare favorably with

sound companies of our general area and our line of business.

We welcome employee suggestions, particularly those directed toward improvement in the handling of their own work. We believe that grievances merit immediate attention, fair consideration, and reasonable determination.

We want cheerful employees that are proud of their jobs and their company.

As we have written, each employee is the whole company personified to people in varying numbers. Public utility employees are not infantrymen in trench warfare, watching only a narrow sector, concerned only with their own defenses, living within the narrow confines of a specific area. To meet his individual responsibility over the wide front, the good employee must of course be a well-informed employee and this essential can only be satisfied when he knows the full story of his company and is kept regularly informed of general company activities.

From actual and successful performance we can offer these specifics of works that go with faith:

1. INSPECTION TRIPS for all employees over company properties and open house at new additions. When the office people are taken by comfortable bus to a power plant, gas compressor station, waterworks, or telephone exchange, and the workers in those places make return calls in the offices, they have not only an opportunity to see the wheels go round but also to mingle with their fellows on the visited property with a real gain in understanding of the business of the company and a chance to build fellowship with their associates.

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2. PERIODIC MEETINGS of supervisors in local departments and geographical divisions and annual meetings of employees in one or several groups. In such sessions there are great gains in efficiency when there is full discussion of safety practices, sales plans, construction standards, delinquent collections, advertising, and such subjects. The annual meetings and the review of the yearly report to employees is surely a morale builder. Such a gathering may start with a business session with two or three executives discussing the report, followed by a question-and-answer period and concluding with a motion picture or demonstration of some recent invention, new type of machine, or an outline of a sales campaign with employee lead payments. Thereafter, there may be dancing or group singing and a plentiful supply of refreshments. Such sessions, if a number are required annually to cover a large force, may mean wear and tear on the executives who have to attend all of them but they live long in memory of all the company family.

3. JOB TRAINING is not only effective in the mechanics of specific tasks,

physical or clerical, but can well be extended to such essentials as the conduct of group conferences, dictation of friendly company correspondence to customers, public speaking, and the submission of testimony before commissions, councils, and courts.

4. RACK SERVICE has its place when it is thoughtfully operated and the material is kept current. Booklets made available to employees will cover subjects of personal interest such as hobbies, gardening, hunting, photography, etc., as well as material on technical subjects, company services, simple economics, business principles, and patriotic presentations.

This channel of communication also offers a great opportunity for the home-made message from the Boss. Boiler plate, professionally written wholesale messages, may have some momentary inspiration but there is nothing in them that can touch the terse, straight from the heart message written by the chief himself. If he says he does not have the time or the ability to put his views to his own people, he too can use executive develop-

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ment. He can write it if he really believes it.

5. ANOTHER popular practice among companies is the sale of their common stocks to their employees, with arrangements for payment on a cash basis by payroll deductions or through a loan arranged with a bank or savings and loan association. This device has much in its favor as a means of bringing employees more closely into the company affairs, underlining the value of economies in operation and of gaining help in sales and new business work. Such distribution of stock creates a very favorable reaction among the employees in a rising market. When the price direction changes there may well be epidemics of disturbance, even extending to demands that the company make good any market losses. There can also be a problem if the employee turns the deal into a market operation, buying the stock from the company at a dollar or two below the market and then quickly unloading for a profit. There may be nothing illegal in this practice if the employee sales have not been arranged with a fixed holding period but widespread use of the scheme may upset an orderly market. We feel that management should go very slowly in arranging direct sales of its own stock to employees because of the long-term problems. If participation in ownership of the company by employees is desired, and there is much to be said for it, then some plan for (a) purchase in the market, (b) immediate delivery when individual savings or payroll deductions equal the cost of a small number of shares, even one, and (c) adequate notice to employees that the company is not underwriting the investment.

6. COMPLETELY apart from any union or collective bargaining unit, the employee association with membership of all the people in a company serves a sound and continuous purpose in employee development and in the contacts of management with the people in the ranks. It may require district chapters or departmental units but its value in social activities, athletic programs, picnics, dances, mutual savings and loan projects, medical and dental services, employee publications, and similar functions is beyond measure. A special unit is the 25-year club or other service unit which builds a growing pride in longer service among employees and serves as a goal for younger people eager to build up a permanent place in the business world. It is also a powerful link with the family of the employee, bringing them to many affairs and making them just so many more antennae and friend makers among the general public.

7. THE survey of employee reactions, when conducted free of any company pressure, is a valuable wind gauge. It involves an inquiry of all or of sample employees by direct interview or written questionnaire. It must be done by an independent, experienced outside agency and only after thorough preparation of the employees in understanding that there are no penalties involved in honest answers and there need be no attempts to rig the reports. One just criticism of the employee survey is that its necessity indicates a lack of communication within a company. When there is a free, two-way flow of news and views from management to men and from men to management there is little need to use a three-sheet

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listing of questions or to take a man-hour per person in interviewing to find thin or weak spots in the company fabric.

8. THERE is no substitute for fair wages throughout the entire payroll. Pampering, extras in the fringe benefits, or deferred compensation are possible alternates but the cash in the pay envelope is the real foundation for mutual advance.

THE increasing sense of harmony of company and staff must come largely through the continuous development not only in the technical skill of the worker but also in his knowledge of the company, its past, its purposes, its facilities, and its organization. Most of the utility companies of this country have now existed enough years to have the second or third or even tenth generation of workers and the record of the past struggles, problems, and successes is a fine inspiration too, and often a means of lightening the burden of, present pressures on those now charged with maintaining the heritage of reliable public service.

Study Course Success

"KNOW YOUR COMPANY" is a story that has basic value for any manufacturing, commercial, or utility enterprise. It is one means through which every employee becomes a true representative because he knows the past and present of his employer. We have had outstanding success in a study course, "You and Your Company." It started with an explanation of what a public utility company is, how it got that way, and what that means to the customer and the company. Then there were successive

units on gas and electricity; how they are generated, transmitted, and distributed, expressed in the simplest possible terms but tied into the actual operations; where plants, high lines, and pipelines, compressor and substations were located. Next there were units telling how a customer got on the line, how he was served, how his meter was read, and how the billing procedure was carried through. There followed a unit on the financial setup of the company, the problems of collecting, financing, and governmental regulation. The course was completed with a unit on business promotion—to make every employee a load builder.

THIS course, presented weekly on company time, helped to integrate all the operations of the utility. Even though in many cases it involved some little traveling, it was an excellent blending agent. Mixed groups were formed containing power plant and line employees, meter readers and salesmen, customer billing machine girls, and people from the general office.

Not only did they get to know each other better, but somewhere in the course



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there would come a time when each person could be an expert and it was interesting to observe how the gas maker expected the billing clerk to know all about the billing operation and how the latter expected the power plant oiler to tell the whole story of the generating station. It worked out that the participants often did more "home work" in their own field than anything else, for no one wanted to admit his ignorance of a subject that other people expected him to know.

OUT beyond the company itself there is a wide field of study for the alert employee. Government ownership, the economics of TVA, the basis of utility regulation are just three of the areas that may be traversed by inquiring minds. In addition, there are general subjects from astronomy to zoology that appeal to ambitious people. Where night courses are not available in local high schools or colleges, the utility company staff may readily make instruction available. It is usually possible to find someone who is an authority on almost any subject and ready to run a lecture course or seminar for very modest fees and out-of-pocket expenses.

One of the most popular courses, and very well worth while for every company to sponsor, is public speaking. One successful experience in this direction originated so many years ago that the title of the course was "The Speak Easy Club." Instruction was supplied by the company and the goal was not the development of senatorial orators but rather employees who could speak publicly with ease and confidence. Too often all of us have seen crude but natural

speakers spoiled by attempts to force bloom them into elocutionists.

One of the present authors wrote a text which is still being reprinted and used. After following it in a "speak easy club" for a year or two every member could comfortably address a meeting formally or informally, conduct a dinner or club meeting, debate with assurance if not success, and increasingly become a better adjusted and happier individual, distinctly more valuable to his company.

WE have been discussing thus far the cultivation primarily of the rank and file and those in the lower supervisory levels. There is similar opportunity and need for work with middle management. They of course should also "Know Your Company." Beyond that they must not only keep abreast of current practices but they must also be aware of the newest theories that are both in the discussion status and under test. Many companies can provide this knowledge by sponsoring courses directed by their own experts or by using staff from engineering and technical schools, choosing naturally from those within the franchise area if available.

Beyond these direct measures, the management men should consider attendance at technical, professional, and business meetings as a must for the papers that are presented, the discussions that are held, the contacts to be made, and the news about what is being done throughout the industry. Serving as a member of a technical committee with one of the associations naturally follows and gives the opportunity for more intimate and closer contacts. On the other hand, conventions

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and annual meetings are much the same and papers presented at them are often more interesting and better understood when read than when heard. In consequence, active participation in such gatherings may become a social occasion or a routine merry-go-round.

Use of Management Seminar

THE real development problem in middle management is to move the employee from a specialist, however competent, to a generalist, from knowing all the details of one operation to understanding how all the operations mesh to produce the most effective conduct of the company as a whole. One of the best methods of achieving this is the middle management seminar. Here groups meet and discuss successively each organized activity of the company from three points of view: (a) the internal problems of the activity itself, (b) the interrelation of each activity with all the others with which it has contact, and (c) the contribution of the particular activity to the progress and development of the company itself. Such sessions cut across department barriers to make co-operation a natural

rather than an enforced thing. They are even more effective than the useful regular luncheons, committee meetings, and other sessions of the management people.

However, in-company programs, no matter how large, technologically advanced, or efficient the company may be, are not enough. Size is no guaranty of a corner on brains, initiative, imagination, courage, and confidence—all so necessary in management today. The situation calls for the use of educational and training facilities available in colleges, graduate schools, and associations. There are many alternatives available and it is wise to consider the basic differences among the various courses, seminars, programs, and workshops offered by numerous institutions.

ONE available channel is the course specifically designed for the public utility business. Notable advances have been made in this direction at Michigan, Georgia Tech, and Washington. In the Arden House facility, the Columbia Utility Management Workshop, with which the writers have now been associated for

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ten years, there has been a constantly deepening appreciation of the results of sending executives into a two weeks' retreat where they look at themselves, at their companies, at their industries, and at the basics of management. The advantage of all these courses is that due to the unique characteristics of the industry and the quite likely acquaintance of a number of participants in any group, little time is wasted; problems, lectures, and material are apt to be right down the participants' alley and the esprit de corps that every company is attempting to instill in its managers carries over into a similar esprit de industrie, a very cohesive force that generates lively involvement in the sessions.

THERE is another group, usually of seminars, directed to some particular problem of major importance in many industries, such as labor relations or corporate contribution practices. Here participants from many types of business meet. The substance of the seminar is basic, rather than peculiar to the utility industry, but it is usually found that the problems are much the same, colored only by the unique features of an industry and the past performance of the individual company. These courses are usually designed for management staff men but, in labor relations especially, the line operators may profit greatly, though often complaining loudly at attending.

A relatively recent innovation in some companies is the creation of special project groups which are a continuation of "operation research groups" and manager development projects. With the help of outside consultants, in combination with technical specialists, synergists, and syn-

thesists, the problems of operation of the company are laid on the table and dissected so that members of the teams, deliberately chosen from different areas of work, learn a great deal and their qualities of leadership are developed.

Diversity of Programs

FINALLY, there are the executive development programs operated by practically every school of business administration in the country. These run for terms all the way from a month to one or two years. Because of the wide diversity of programs, caliber of faculty, and length of program, it is difficult to make general statements about them. The advantage is, as usually discovered by the participants, that management is much the same problem, no matter who is managed. The manager who thinks that his operation is special and unique, and perhaps unusually difficult, finds at programs such as these that he is not out in left field alone. Often what one industry thinks is new or distinctly unusual is old stuff elsewhere. An apparently new problem in the utility business is old hat in banking and, of course, vice versa.

Coaching such as this can be very useful to the officer of a company after he has licked the technical and personal problems encountered after his promotion. Now he must take a wider viewpoint, not alone of his company, but also of the industry in which he is engaged and of the whole economy and society. He must grasp the importance of economic endeavor generally in the maintenance of the way of life which we prefer and profess. It is this postgraduate work which helps to supply the reservoir of intelligent, imaginative, courageous, and competent

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men who will be needed so importantly tomorrow to meet the problems that cannot be foreseen today. Regardless of the content of the programs, or the caliber of the speakers, or the usefulness of the subject matter they present, the participants are almost entirely responsible for what they get out of the experience. As has been said, "You can send a man to a conference, but you cannot make him think."

EMployees of all grades can also be encouraged to write about their work, their company, their community. There are few people who do not like to see their names in print, and fewer who do not take pride in articles they have written and signed. It is possible in connection with the company library and the public relations or employee relations department to help these aspiring writers greatly, thus adding to their own standing and raising the public esteem of the company due to the publications of its employees. In some fields such as research, the ability to publish is an important fringe benefit which in many cases ranks high with salary in employee satisfaction.

For middle and top management there is need not alone for writing but for reading as well. There is an imperative re-

quirement for a broadened publication reaching far beyond company news notes, legal decisions, association monthlies, and commercial news. The utility industry of our country should have a periodical going to everybody in the industry which will report on the technical progress of the industry, the political problems which have arisen and which lie ahead, the state of the industry both locally and nationally. Such a publication might well be supplemented by bulletins issued by each company commenting on the contents of the formal publication, telling about all additions or changes which have become official, reporting on the status of commission activities, financing, and all other matters of a general nature pertaining to the individual company.

ALL of these measures we have recited and others that are available are directed toward the cultivation of the most important people with whom the utility is involved—the employees. None can exceed them in influence or effect for they are not only the workers that make things hum, they are also probably customers, they are likely to be shareholders, and they are certainly members of the community. They hold AAA rating in the Who's Who of Utility People.

"IN twenty years we have lost more than 50 per cent of the purchasing power of the dollar. Let us, in all seriousness, ask ourselves: How disastrous will it be if we continue inflation-breeding policies—which appear to be on the increase—when our concern should be for return to fiscal responsibility? . . .

"Our fiscal position is vulnerable, and Khrushchev knows it. This is a prime target in the strategy and tactics of the cold war he is waging against us."

—HARRY F. BYRD,
U. S. Senator from
Virginia.



Should U. S. Utilities Take Their Security Sales Talks to Europe?

Last summer the top management of an American gas utility distributing company decided upon an unusual and even daring innovation in security sales talk procedures. It decided to talk directly to foreign investors in Europe, at investor luncheons, with the company president doing the talking, questions and answers, and all the usual setup of similar operations which have become such a familiar part of the scene in domestic financial circles. This interesting article tells why and how this was done for others who might want to think about it.

By STEPHEN E. TAYLOR*

A NEW milestone in investor relations was attained by Northern Illinois Gas Company this past summer when President Marvin Chandler spoke to groups of financial leaders in three large European cities. It was the first time an American company engaged primarily in distributing natural gas had taken its story to important European investors.

Mr. Chandler's luncheon talks covered

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the potential of our natural gas industry and the advantages of the great Midwest, as well as the operations of Northern Illinois Gas. Lively question-and-answer sessions following the talks revealed that Europeans have keen interest in the American gas industry.

The presentations were part of an intense program of investor relations.

When NI-Gas separated from Commonwealth Edison Company and became an independent investor-owned corporation about seven years ago, a major prob-

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lem was the symbolization of NI-Gas as a separate entity worthy of investment. Our company's investor relations program, however, was designed from the beginning to attract new investors as well as educating those "inherited" from the former parent company.

WITH intelligent communications planned as the key to this continuing program, NI-Gas executives have been traveling throughout the nation to acquaint investors with the company. Presenting factual data about the company to analyst societies and representatives of financial institutions, NI-Gas officers and other key personnel have spoken at 79 meetings (of which 17 were in connection with financing) in 24 different cities since the company has been "on its own." We reached a total audience of nearly 3,700 persons.

During the planning of some of these meetings last year, the question arose, "Should we extend our talks overseas?" We felt that present shareholders and prospective investors overseas would be just as interested in the NI-Gas story as those in America. With \$125 million of new money needed during 1961-65, we want as many investors as possible to be aware of NI-Gas as a desirable haven for their funds. Aside from our need for new money, we believe, too, that NI-Gas will receive fair and favorable evaluation of its securities through broad knowledge of the company.

When President Chandler made plans to attend The International Gas Union Conference in Stockholm in June, 1961, we began work in earnest to schedule several European financial meetings during his trip.

Three Cities Selected

THE first task was to decide which cities to include. Based on the time available and on the meager information we could acquire about locations of our overseas shareholders, we chose London, Edinburgh, and Amsterdam. This list certainly did not comprise all the financial capitals of Western Europe, but we decided it was the best itinerary for a first trip.

Of course, we then had to determine which people to invite to the meetings. And it was important to select appropriate facilities and dates. It would have been rather disastrous, for example, to have scheduled a meeting in the Netherlands for May 11th (Ascension Day), or in England for May 22nd (Whit Monday)—both national holidays. We also had to avoid the vacation periods. The job of making arrangements required broad acquaintance with foreign financial leaders and intimate knowledge of their local customs and practices. We quickly realized that we needed help; it was essential to have representatives on the scene.

Therefore, we called upon several firms for assistance. For the London meeting, our liaison and host was Guy A. Crum, The First National Bank of Chicago's vice president there. The First Boston Corporation and Glore, Forgan & Co. assisted with the preliminary arrangements.

IN Edinburgh, our host was Glore, Forgan & Co. James W. Pope, of Glore's Chicago office, handled the arrangements.

The Morgan Guaranty Trust Company helped plan the Amsterdam meet-

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ing. Our host was the Amsterdam firm Hope & Co.; P. F. J. de Kok, partner in Hope & Co. and former chairman of the Amsterdam Stock Exchange, presided at the meeting.

The great amount of detailed planning was started almost a year before the trip. During the last six months, we worked on the trip almost daily. The help of the assisting firms was invaluable in guiding the preparations and the trip itself.

Mr. Chandler spoke to thirty-five people in London, at the Great Eastern Hotel, on June 21st. After taking the overnight express to Edinburgh, he spoke to nineteen guests there the following day at the North British Hotel. On June 10th, following The International Gas Union Conference in Stockholm, he delivered his talk to a group of forty-five at the Carlton Hotel in Amsterdam.

Information Booklets Stimulate Interest

THE selection of meeting places is important. They should be within easy reach of the guests, and places where they are accustomed to meeting. Our locations met these requirements.

Prior to the meeting dates, booklets

containing basic information about NI-Gas were distributed to all of the invited guests. These helped to arouse interest in the meetings and to stimulate questions after Mr. Chandler's presentation.

There was a high percentage of acceptances to the invitations, and almost everyone who accepted did attend. Most of the guests in London and Edinburgh were senior officers of investment trusts, banks, and insurance companies. In Amsterdam, where we encountered no language problem, the meeting was attended by members of the newly formed Analyst Society as well as senior financial men.

IN his 30-minute talks, Mr. Chandler reviewed the great size and potential of the American natural gas industry. He pointed out that two conditions have shaped our industry's character—the vast reserves of natural gas, and the great distances which separate the gas-producing fields from the gas-consuming population centers. He briefly traced the history of the gas industry and outlined its present status, including descriptions of reserves, production, transmission and transmission rates, storage, competition, regulation, regulatory problems, sales, and estimates of future energy usage.

Discussing NI-Gas, he explained that the company's progress in recent years—1960 net income was almost triple that of 1954—has been made possible by four factors, and he elaborated on them. They are: "The vitality of the area we serve . . . the solution of a persistent deficiency in supply . . . our own sales effort . . . and the favorable Illinois regulatory climate."

Mr. Chandler also mentioned some of



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NI-Gas' new developments. These included use of television for gas main inspection; meter reading by telephone; electronic gas dispatching; automated processing of customer paper work; new methods of gas storage; and electricity generation by natural gas-driven turbines.

IN the question-and-answer sessions, the guests demonstrated great interest in many aspects of the American natural gas industry. They were surprised to learn of natural gas' general price advantage in the U. S. and asked for an estimate of the competitive situation during the long-range future. They also asked for more information on long-range supply and on federal regulation. They evidenced an understanding of the American economic scene and its trends, which few Americans have of European countries.

Mr. Chandler, in recounting the meetings later, said he believes that general impressions made by visitors seem even more important to the Europeans than the specific information presented. He added, however, that from their background of manufactured gas in their own countries, he felt the guests had had no conception of the modernity of American gas appliances and natural gas operations.

Each of the question-and-answer sessions ran longer than thirty minutes.

Feel Meetings Worth While

THE luncheons preceding Mr. Chandler's remarks were considerably more elaborate than those to which Americans are accustomed. Generally, four courses were served, with accompanying wines and liqueurs. The leisurely pace caused the meetings to run into the middle of the

afternoon, and only a few left before the close.

At the end of the programs, each guest was given a copy of the annual report, quarterly report, month-end financial statement, current prospectus, a brochure on NI-Gas' service territory, and a published compilation of financial and statistical data. These were encased in a souvenir plastic envelope.

We at NI-Gas have no doubts that the meetings were worth while. Europeans, like Americans, invest in companies with which they are familiar; these meetings made us friends.

MOST Europeans have not realized the value and potential of the American gas distribution industry—the U. S.'s fifth largest industry—because natural gas is not an important energy source in many countries over there. However, European capital was attracted to transmission companies when pipelines were rapidly expanding to bring natural gas to all areas of the United States. Investors are now doubtful of the future growth of the transmission companies at the same pace and consequently are lethargic on gas distribution as an investment. But they showed that they are eager to learn more about gas companies, our methods, our territory, our economics, our people.

Unquestionably, the Europeans enjoy hearing the information from top executives in person. After all, without personal association, American gas companies can remain little more than names to the overseas investors.

We all know that foreign capital is going to be invested in American companies that appear to be most attractive. Gas companies can boost their chances

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of receiving it if they will tell overseas investors about the progress they and the American gas industry are making.

NORTHERN ILLINOIS GAS common stock is listed on the Amsterdam Stock Exchange. However, to the best of our knowledge, a very small amount of our stock is held by European investors. Actually, we cannot trace that any of our shares have been acquired as a result of the meetings, but we do feel that the

European financial communities have a better picture of the American gas industry and its investment potential.

THEREFORE other gas companies may well consider this favorable reaction in determining whether to take their stories to European financial groups.

How does NI-Gas feel about it now? Best answer, perhaps, is that we already are thinking about another trip to other financial communities on the continent.

Centennial Celebration of the Transcontinental Telegraph

ALITHE young man shinned up a telegraph pole and attached a wire to an insulator. On the ground another attached a wire to an old-fashioned telegraph key. A third clicked the key and called to the lineman atop the pole: "The line is connected." That was the way it happened in Omaha 100 years ago October 24, 1861.

The re-enactment by students of Creighton University, named for Edward Creighton, the builder who completed the first transcontinental telegraph line, touched off the 100th anniversary celebration of that occasion. The students, dressed in the manner of 1861, symbolized the historic connection of the lines linking California with the East, after Edward Creighton and his army of 400 pole setters and wire stringers completed the link between Omaha and Salt Lake City. It closed the last gap in transcontinental telegraph lines.

The ceremony was attended by Walter P. Marshall, president of Western Union Telegraph Company, who was awarded an honorary doctor of laws degree by Creighton on October 24th. Once the symbolic connection of the telegraph lines was made, the messages started clicking over the wires, received both by Morse operators and by high-speed teleprinters of the present era.

The first telegram was sent from California to President Kennedy—a copy of a message sent to President Lincoln 100 years ago, assuring him of the loyalty of western states to the Union. Others from the West followed. In Washington President Kennedy had his reply ready—"Those messages, so eloquently assuring Lincoln of the loyalty of the western states to the Union, then divided by Civil War, are proof of the vital importance of the first transcontinental line to the preservation of our nation."

Rigging Your Own Quiz Programs



A fresh, maybe exciting channel for utility relations people. Everybody, but everybody, likes to pit his knowledge against quizzes. A quiz program puts complicated utility facts in capsules, flavored to suit any taste. What went wrong with TV quizzes? When you know, it will be easy to dodge the cops.

By JAMES H. COLLINS*

As often happens at parties, there was a lull in this one. A bus load of farm folks—seventy-five of them—had been brought to a regional electrical powerhouse, and while the men went through to see how electricity is made, the ladies waited, forty of them. They had made some acquaintances in the bus, but an icebreaker was needed.

The company executive in charge selected a sure-fire loosener-upper—a quiz program. To each of the ladies he handed a sheet with questions, and for each question there were five answers, from which to choose the right one. He read each question, and asked the women to ring

what they thought was the correct answer, and then the right answers were written on a blackboard for everybody to see who was right or wrong.

THERE was immediate interest, and a lot of fun in comparing notes, and good-natured chaffing for those who were wrong.

The first question was, "Who do you think owns this company?" The answers from which to make a choice were:

1. The federal government.
2. A small group of millionaires.
3. Thousands of private citizens like yourself.

*Professional writer, resident in Hanover, Pennsylvania.

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4. The state.
5. Several large corporations.

TWENTY of the contestants got it right. A few thought the state owned the company, probably because the word "Interstate" appears in its title. Nobody thought the federal government owned it.

This quiz was rigged, heavily, in favor of the company. Most quizzes are rigged, and should be, for the quiz program is a popular device for getting attention, and should be used more by utility relations people, to present facts and counteract mistaken notions about their industry, and their own company.

It is too bad that rigging got television quiz programs in such bad odor. Too much showmanship, and too much money, led to their being outlawed. It might have been the money. Very few quiz programs have to be spiced with prizes. The television ones started with a \$64 limit, but when they became a no-limit poker game, the beans were spilled. It may be, as is beginning to be suspected, that too much money spoils things.

As an example of company rigging, other questions in this quiz handed the farm wives related to taxes, profit, continuity of service. The choice of answers on taxes ranged between two and 30 cents out of the revenue dollar. One woman in four got it right, 20 cents; most put it too low.

Profit on the dollar in the monthly electrical bill ranged from one to 30 cents. One in ten got the right answer; most were too high. On continuity of service the past year—maybe a treacherous question—the choice of answers ranged from 75 per cent to 99 per cent.

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Three out of four got it right—99.9 per cent.¹

How the "Time" Quiz Is Rigged

THE quiz program is eternally popular because it is a form of self-education. The participant is challenged to pit his knowledge against standards, and pass an exam. It can be played in a crowd, as was this utility quiz, or in a crowd like bingo. The only reward required is, passing with good marks one's self, with nobody looking over your shoulder. The quiz form is extremely flexible, can be posed for a business concern, a political campaign or party, or any interest that wants to stimulate right thinking, or counteract dangerous thought.

One of the most widely known, and played, of the quiz programs is the current events questionnaire published periodically by *Time*, a refresher course in the news of the past year. It asks hundreds of questions about happenings, personalities, sports, international affairs, books, music, the theater, and other news categories, all of them published and commented on in the magazine at the time they occurred. Many readers—perhaps the majority—will not have remembered, or cared, will be more interested in what is going to happen tomorrow.

BUT there is a meticulous kind of mind that rises to such a challenge, gets satisfaction in knowing a large percentage of the answers.

"I got practically every one of them except the books and shows," said a

¹ "A Farm Family Visit to a Powerhouse," by Robb M. Winsborough, vice president, Middle West Service Company, *PUBLIC UTILITIES FORTNIGHTLY*, June 8, 1961, Vol. 67, No. 12, p. 810.

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utility manager, "and my wife got them."

Good man! That is the kind of mind and spirit that makes a good executive.

Is this quiz rigged? There are no prizes, nobody keeps score but the contestant. Is there a value to the magazine? Definitely—good readership, a self-administered pat on the shoulder for keeping abreast of what *Time* publishes, subscriptions, and newsstand sales.

Back Your Quiz with an Authority

THERE is another magazine that makes even better use of the quiz technique, *This Week*, the Sunday supplement that comes with Sunday newspapers all over the country.

This magazine has always had a handicap. Sunday newspapers have editorial staffs and special writers to make the Sunday paper interesting, and build advertising revenue. The Sunday morning audience is lazy, takes up the paper with a "Ho, hum!" *This Week* has for years successfully broken down Sunday morning lethargy, and made a supplement that the newspapers buy.

And for years it has used the quiz technique, posing questions that readers do not easily pass by. Its topics are worth study by utility relations people, for tips on using the quiz idea, and on interesting people in general.

Many of the quizzes are highly personal. "Are you a good father? Rate yourself by these 12 qualifications found in a national survey by an eminent psychologist."

"Could you be picked as a candidate for President of the United States? Here are 20 qualifications insisted upon by both political parties."

"Do you goof socially? How many of

these standard social goofs have you made this year?" By a nationally known social leader.

OUT of an average contents table of a dozen topics, some of them regular features, like jokes, recipes, and cartoons, there will be two or three of these quizzes, and the more personal, the readers love them.

A fact worth noting—and adopting—is that these quizzes are almost always backed by some kind of authority. Psychologists and college professors must find many a piece of change in coming up with a good questionnaire, preferably insulting to Sunday morning readers.

Applying this principle of authority to a utility quiz, besides asking who owns the electric light company, let the answers be backed by national survey statistics, or a prominent economist, or for local purposes, by the company's president, or its engineers. "Don't take our word for it—these facts are taken from a government report."

Who Gets Most Bell Money?

THE quiz technique is extremely flexible, can be adapted to local situa-



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tions, is unfailing in its interest because it appeals to the universal ambition of Americans to be well-informed, to keep up with the Joneses in knowledge as well as cars and lawns. As a tool, utility men will find innumerable ways of putting it so as to look like a cartoon, that simplifies a complex political or economic situation, humanizing it, like the picture that is worth a thousand words.

Picture the telephone man who likes to talk to neighborhood audiences, a stand-by of the industry, and of other utility companies. He is asked to come and talk to a neighborhood audience on some phase of his work. The audience probably has no notion of a topic. "Just come and talk about whatever you think is interesting about your job," he is told.

So he elects to talk about taxes.

Instead of hemming and hawing, reminding his audience of what Mark Twain never said about the weather, and comparing weather with taxes, because everybody talks about them, he prepares a quiz, on the order of the one handed those farm women.

There are certain to be AT&T shareholders in any audience. How much per share did they get last year in dividends? How much do they think the tax collector got—less, or more?

Any stockholder knows that the dividend was \$3.30. The tax take was more than \$7.66. Those were direct taxes, federal and local, including the surviving war tax on the telephone bill.

THE tax collector's ideal is to hide as much taxation as possible, and this is done by making the taxpayer collect for him. There are no figures for the company's clerical expense in collecting

surtaxes for the federal and other governments, but it runs into money, and indirectly the subscribers pay for it.

How do taxes compare with wages? Taxes paid by the Bell system in 1959 amounted to more than six and one-half months' salaries and wages.

That the telephone business has had tremendous postwar growth is well known, often through waiting for a phone until one was available, and the plant to connect it. Even as late as 1959 millions of dollars worth of equipment was bought from Western Electric. Did equipment cost more than taxes? No, the tax total was higher.

One of the familiar red herrings of the times is the prospect of tax reductions. Politicians promise it, every sort of lobby demands it, many economists prescribe it as a pill to cure every ill.

What is the prospect of telephone tax reductions?

The present tax bill of the Bell system is about 23 cents per dollar of revenue. Projected at the rate of growth for the past twenty years, by 1980 this will be about 50 cents, half one's telephone bill.

Did Washington Like Canned Tomatoes?

ONE of the relations audiences not as well cultivated as it might be, is the pupils in the public schools, not only the high schools, but elementary grades. The quiz technique is an excellent channel for reaching them.

Setting up as a consultant, with a test laboratory, a young chemist found that businessmen, his best possible clients, did not know what he could do for them. In a dispute over fading garments, he could show whether the store, the cus-

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tomer, or the manufacturer was responsible. In a damage suit over tornado attack on a pier, he could supply proof that the timber used had not been properly treated with creosote.

He started a little periodical describing such problems, and, as an added feature of interest, framed a quiz corner. "Is salt an element, or a compound?" was a typical question. "Did George Washington ever eat canned tomatoes?" The answer was "No, the canning process had not yet been invented, and the Father of our country probably believed, with his times, that tomatoes are poisonous."

PRESENTLY, school teachers were asking him for advance answers to his quiz, in which the questions were asked in one issue of his little house organ, and the answers in the next. Teachers were using his quiz in their classes.

"Why?" he asked a school principal. "These questions are framed for businessmen, how can schoolchildren be interested in them?"

"For one thing," she replied, "they are different from the chemistry in the textbooks. You are not a far-off professor, like the textbook writers, but a resident of this city, in a chemical business. By putting up the questions in advance, pupils can look up the answers."

For such reasons, teachers are constantly seeking teaching material, and utility relations people will find it rewarding to learn their requirements and standpoints. Many utility operations and problems can be made interesting to school youngsters in the form of quizzes. The telephone, gas, and power company are residents of the city.

A Russian Quiz—Really Rigged

ONE example of the quiz in teaching comes from Russia. Including rigging! It was brought back by two American visitors who went into Russian schools, Jhan and June Robbins, and was immediately siezed upon by *This Week* and published with the typical challenge for the Sunday reader: "Could You Pass a Russian Test on American History?"

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For the FORTNIGHTLY audience the answer might be, "Not this kid!"

Sample questions:

Name the six tribes of the American Indian Iroquois Confederacy?

What follower of Karl Marx was a Union Army General in the American Civil War?

Who was the great American Negro woman who helped hundreds of Negro slaves escape to freedom?

What group of American Indians is still technically at war with the United States?

That might stump an Indian—it is the Seminoles in Florida. The six Iroquois tribes in New York state, so advanced in Colonial times, were the Mohawks, Onondagas, Cayugas, Oneidas, and Tuscaroras, all credit to the Russian kids for spelling their names in their alphabet. The American General was General J. Weydemeyer—there is some doubt about him, and anyway he was only one. The American Negro woman, little known in our own history books, was Harriet Tubman.

NOTHING is said in this quiz about George Washington, or the cherry tree; the cherry tree story would be scoffed at by Communist kids, anyway, who are taught that by telling lies often enough you can get away with anything. Abraham Lincoln is mentioned once, not in connection with the Russian Czar's aid in the Civil War, but who was his successor.

Nothing about Thomas Jefferson and the Declaration of Independence, Teddy Roosevelt and the Roughriders, nothing about our own revolutionary start as a nation, about it would be thought some interesting parallels could have been

drawn, nothing about our inventors, the Edisons, Whitneys, Fords, and McCormicks, who lifted loads of drudgery and built the American way of life—the Russian kids have undoubtedly been taught, elsewhere, that these inventions were all anticipated by Russian scientists, and rightly, only they never put their inventions to work.

Interspersed with such questions are others spotlighting unemployment, the depression, the color ban, the failure of Americans to vote, subjects that prove out of our own history that Americans are capitalistic stinkers—the party line. From our standpoint, this is rigging, but from the Russian angle it is just what Ivan's education should consist of—and very clever use of the quiz technique.

The Robbins reported that one Russian class got all of the questions right, and that 17 out of 20 was a fair average in Russian schools.

Telephone Shoulders to the Wheel

IT is not only teachers who might be interested in the kind of information that utility relations people could give them, but the pupils in our schools. The Russian sputniks stirred up a keen interest in science in high schools, before which science was one of those subjects you could elect, or skim through for your degree. Ben Franklin and his kite, Einstein and relativity. Now it was sporting, a race to catch up with the Russians, and in Chicago, specifically, science students and teachers organized yearly science fairs, to stimulate public interest in scientific education as well as their own.

At these fairs science students exhibited their own technical projects. There was another objective—to stress the fact

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that talented boys and girls were to be discovered in science classes and encouraged.

For several years the students and teacher struggled putting on these fairs, scraping up money, doing the detailed work of arranging their shows, appealing to business concerns for material, technical help, and contributions.

EVENTUALLY these science fairs attracted the attention of Illinois Bell people, and they put a shoulder to the wheel. President W. V. Kahler personally led a group of Chicago businessmen who raised \$20,000 for expenses, awards, and scholarships for the Chicago fair and others that had been set up in other parts of the state. Besides financing one of the Chicago fairs, telephone people in other towns contributed technical assistance in arranging exhibits, obtaining accessories from various business concerns. These were volunteers from plant, engineering, field, and other departments. Students no longer had to improvise facilities, but found booths ready, with electricity, refrigeration, gas, light—whatever was needed to put on their shows. Engineers acted as judges in making awards.

Typical of the awards, which were offered for various areas of science, was the one for the best exhibit in the field of communications, an expense paid visit to Bell Laboratories in New Jersey. Other business concerns making contributions could likewise designate particular areas of science, diversifying the fair, and stimulating students in making exhibits.

Thus, the discovery by relations people in one utility company, of the school interest in one field of education, opened

up a new angle for company citizenship—one that had been overlooked.

The Educational Crossword

THAT the average citizen—the common man—is ready to pit his knowledge against boogy, in a quiz program, is something constant, and dating far back, perhaps to the Sphinx and her question.

Long before the quiz program materialized, there was the old-time spelling bee that explored the dictionary for tricky words. The spelling bee was gregarious. There had to be numerous contestants, and an audience, and judges, and prizes. It had to be, as they say in Hollywood, a production, not held just anywhere, or very often—a hall had to be hired. To enter as a contestant one had to have qualifications. One tricky word could put you out of that school.

In other words, no kind of a hobby for Robinson Crusoe.

About forty years ago the spelling bee was modernized and made into a game at which Robinson Crusoe could have played, been his own judge, played it



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anywhere. A Sunday magazine editor took out of newspaper columns a haphazard puzzle corner devoted to conundrums, anagrams, riddles, and embryo word puzzles, and shaped it up in a diagram of squares, in which words were to be fitted from definitions. Briefly, the crossword puzzle. It ran over the land like a prairie fire, and over the world, and of all the self-educational devices it is the most popular, has developed a business in itself of professional crossword builders, and syndicates to merchandise their products.

IT is absorbing to watch the people doing crossword puzzles on buses, trains, in waiting rooms and any spare time, pondering "horizontal" and "vertical," studying definitions, counting letters, soliciting suggestions, getting the thrill of cracking a corner with one elusive word that proves to be the clew to a dozen others that will not fit in.

The key to one tough corner is a word of three letters for a boat. "Ark," "gig," "tug," "cog," are tried. None unlock the corner. A further clew is given, "also a Spanish word meaning 'today.'" A child says, "We had that in our Spanish lesson —'hoy'!"

"Is that a boat?" The dictionary defines it as such. It develops the corner like a negative emerging in the developing bath. Also, disclosing a misspelled word that has befogged the corner. Spelling is one of the requirements of crossword solving.

As a self-educational device, the crossword puzzle teaches a story, geography, the sciences and arts, the biographies of famous personages, their sayings, their last words . . . contestants meet esnes,

helots, goodies, amahs, become familiar with biremes, triremes, sepoys, askaris, peris, dryada. . . . It is broader in scope than the spelling bee, or the quiz program, and the most popular.

WATCHING contestants working crossword puzzles is in itself a liberal education in that objective of relations people—the public. "Experience keeps a dear school, but some will learn in no other," runs the saying. There are crossword solvers who, manifestly, did not get very far in school, and who might not rate very high in an intelligence test. For them there are simple crossword puzzles built on "apple," "lion," "motorcar." They are still trying to improve themselves, and are utility customers, to be informed, and have misinformation corrected. Then, there are the sophisticated solvers, who can be spotted by their using ball-point pens to fill in the little square, proud of never having to erase. They, too, have wrong notions about regulated business, to be dispelled by the quiz technique.

It takes all sorts of people, and the oftener relations executives can see them in real life, the better their work should be.

The Company Is a Foreigner

FRAMING utility quizzes should be, for relations people, a fresh new angle on their work. For it is taking the information that, for years, they have been laying before the public in complex statements, statistics, and arguments, and concentrating it into capsules, nicely flavored for different tastes.

"Who owns the company?" is a fine example of a utility quiz. It might be

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posed in a community where a rate case is pending, and the citizenry are being buffeted with propaganda alleging that the gas company or the power company is a Wall Street monopoly, rich with the money it has taken out of the community, needing no rate increase, making too much money at the present rates—what is needed is a rate reduction.

This is a line of attack on the Cockney principle, " 'e's a foreigner, heave 'alf a brick at him!" It is charged with feeling, requires few facts, is difficult to refute without arguments, statistics, and other complexities that nobody wants to listen to, and pillories the company as the one rich kid living in a dead-end neighborhood.

So, "Who owns the gas company?" is one of the direct questions with which to simplify the issue, give the citizenry the dope with which to decide the issue themselves.

For the farm wives this question was asked with several multiple answers from which they were given information guiding to the correct basis of ownership.

HERE is where relations people are likely to enjoy using this new quiz technique, selecting good questions, and

posing plausible answers from which contestants can choose. Along with the right answer, ownership by the citizenry themselves, it is cricket to put in some off-beam answers, even one a little wild. None of the farm wives thought for a minute that the company was owned by the federal government. Three or four of them named the state, but there was a trick in that. A few believed that Wall Street and millionaires must own a company with the big power plant they were visiting, but half of them had already, in some way, arrived at the true situation.

FOR many purposes the straight quiz is the accepted form: "Is salt an element—or a compound?" The question may be one in the contestant's own field of knowledge, about a business, or the community. He will have correct answers to such questions, or as with educational quizzes, will look up information, as part of his schooling.

The multiple answer quiz is best for utility purposes, because it appeals to a wider audience. The contestant needs no information to become interested. The question is as simple as, "Have you stopped beating your wife?" All he needs

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to be interested is such wrong beliefs as he may have got from scuttlebutt.

"CONTESTANT" does not seem to be the exact word for the individual who can be intrigued by such a question, pitting his knowledge, judgment, wrong ideas against bogey, for no prize but the satisfaction of picking out the right answer. There should be a better word, but it is nice for public relations that people are easily led to play this game.

Finding good multiple answers is a job of teamwork for relations people, could be a "crash idea" session, in which one good answer could be boiled down from twenty suggested on the spur of the moment. Answers will suggest other good questions about ownership.

For example, who gets this profit that the company is supposed to take out of town? Suggested answers: The president and vice presidents of the Wall Street company? Big stockholders? Life insurance companies, dead men's estates, colleges, and other holders of the company stock? Do local people get any of it, as dividends? Do employees of the company own stock and get dividends? Is a large percentage of the profit left in the community, in the form of wages, taxes, purchases of supplies?

IT is important in rate cases to see that employees are alerted in advance, and given facts with which to answer the questions neighbors, friends, and customers are sure to ask. "Bill, Jennie, you're with the electrical, the gas company, tell me . . ." Employees reporting such questions will suggest quiz questions and multiple answers. Apart from rate cases and other unusual situations, this is a

stimulating field for suggestion boxes.

One aspect of a rate case, according to utility people with experience in dealing with the problems they raise, is to publicize the company's service. Rates are not the aspect of a rate case in the public mind, even though the shindy kicked up about them, as the case drags along, might lead one to believe.

"How good is the telephone, power, or gas service?" is a fertile question for concocting multiple answers. It raises problems of measurement. Ask the contestant to decide for himself if the service is good; has he had any complaints recently; they were attended to by the company; the service is not as good as it was five, ten years ago; it is better?

For telephone service, apart from prompt connections, correct billings of toll calls, the rectification of errors, a good question might be, "How much more service does your monthly telephone bill buy, compared with five years ago?" One yardstick by which subscribers could check for themselves would be the number of local phones reached, which is constantly increasing.

Another, the constantly growing area reached by local calls. There should be some good guessing for contestants on such details as the amount of telephone bills as an item in the family budget—a little sampling of family budgets, say a hundred, should develop interesting figures. The telephone bill is the smallest, or next to the smallest fixed item of family expense. This angle could be applied to power and gas.

The TV Quiz Was Hitched to a Comet

THERE is no reason why a utility company should not quiz the citi-

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zenry on its problems in running the business. For example, the winter and summer peaks, and the struggle to level them off by promoting electrical heating and gas air conditioning.

In the gas area a good question might be, "How many employees were discharged when natural gas arrived?" Presumably there could have been a large displacement of employees who manufactured gas. Actually, there should be more people working in gas jobs now than was the case when the gas was made from coal or oil. Where do these added employees work? Why, in distribution, which has always been the main activity of the gas business, piping it to customers, reading meters, making out the bills. Natural gas has made it possible to reach more customers. What became of the big gasometers that used to store and furnish pressure for manufactured gas? The underground storage facilities are almost news to many gas customers. Of telephone service, electricity, and gas, which is able to store its commodity? Only gas! What is the largest consumption of gas in this community—how many thousand cubic feet, and how was the emergency demand met? In electricity, questions about power pools—"How far away can the power company obtain electricity should demand exceed its own plant in an emergency?" "From how far away can the company call in emergency linemen in a destructive storm?"

As utility relations people get interested in this new technique of framing quizzes and answers, they may encounter the situation that faced the promoters of the television quizzes.

When television programers discovered the vast populace of people willing to pit their knowledge against bogey, they not merely hitched their wagon to a star, but a comet. Besides checking up their own knowledge, the television quiz gave the added fascination of seeing experts answer the questions. The quiz programs had to be made visible, which is not the case with such utility questions as "Who owns the gas company?" The TV programers, experienced showmen, intensified the interest by finding the shoemaker who was an encyclopedia of opera lore, the obscure clerk who was an almanac of sports, the Hollywood actor who could answer the most difficult questions in art, from his knowledge as a collector.

Making the show visible was not enough. These experts had to be seen sweating in glass booths, had to be coached in hesitations and other suspense tricks . . . and then the excitement of big money was added. Instead of "Will you try for the \$64?" it became "Will you try for a quarter million?"

It might well be that local utility quizzes could be put on television, keyed to general information about the community's utility services, and the community itself, even staged with local experts, the mayor, the oldest inhabitant, leaving out the glass booths, the money prizes—all good, clean fun, knowledge of the town, its activities, its history, its regulated business.

There seems to be no reason why national TV quiz shows could not be staged, by utility associations, keyed to such problems as private *versus* public ownership and similar questions.

An Analysis of the FCC Membership



By LAWRENCE W. LIGHTY*

A background review of professional qualifications of the past and present members of the Federal Communications Commission from 1934 to the present, with special reference to public utility experience.

SINCE his ascendancy to the chairmanship of the Federal Communications Commission in March of this year, nearly all of Newton N. Minow's public utterances have dealt with broadcasting—especially television programing. It is probable that the general public knows little about the FCC's regulation of telephony and telegraphy. Certainly the interest of Congress has more frequently dealt with radio and television in its relationship with the commission than with any other of the FCC's many activities.

This article examines the backgrounds of the thirty-three men and one woman who have served on the FCC since its creation on July 11, 1934—with particular reference to public utility experience. A

summary of their backgrounds is presented in Table 1,¹ page 829.

IN 1927 when the Radio Act was adopted by Congress creating a five-member Federal Radio Commission, there was some pressure to include wire communication under that act. This was not done. On February 26, 1934, President Franklin D. Roosevelt sent a message to Congress urging the creation of a Federal Communications Commission to regulate all services "which rely on wires, cables,

¹ A complete list of all former and present commissioners, their legal residence, political affiliation, and term of office is found in a number of reference books. The sources on which this study is based include: standard published biographical references, newspapers, trade magazines, and FCC publications and news releases. Additional information was obtained from correspondence or interviews with twelve former or present members of the commission.

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or radio as a medium of transmission."² Since those original seven FCC commissioners, two of whom had served on the FRC, twenty-seven persons have been appointed to the FCC, the most recent being Mr. Minow.

AN FCC commissioner may be appointed to serve one or several full seven-year terms or may fill a term suddenly left vacant. Thus, the length of time commissioners have served on the FCC varies a great deal. The extremes run from Paul A. Walker, who served for nineteen years on the FCC, to Hampson Gary and Charles H. King, who were members less than six months. Average service is less than five years. Not included under "Length of Service" in Table I are the seven present commissioners. Of these, T. A. M. Craven, who was a commissioner from 1937 to 1944 and reappointed in 1956, has served twelve years; Rosel H. Hyde has been on the commission fifteen years, and Robert Bartley, nine.

Nearly as much range is shown in the age of commissioners when originally appointed as their length of service. Charles R. Denny was appointed when he was thirty-three, but Commissioners Thompson, Prall, and McNinch were nearly twice as old when they were appointed. The average is forty-eight years of age.

The Communications Act of 1934 requires that not more than four members of the FCC shall be of the same political party. Nineteen Democrats and thirteen Republicans have been appointed to the FCC. Two Independents have also been members.

Members of the commission, viewed very broadly, are, for the most part, professional men. Their training has been academic and legal rather than technical. An outstanding feature is the variety of their educational experiences. Large as well as small schools are represented, and private as well as public. Only one school

TABLE I
MEMBERS OF THE FEDERAL COMMUNICATIONS COMMISSION

The table shows the backgrounds of members of the FCC. A total of thirty-four commissioners, including one woman, have been appointed to the FCC between July 11, 1934, and October, 1961.

<i>Background</i>	<i>Number of Commissioners</i>
<i>Length of Service on FCC^a</i>	
Less than 1 year	5
1 to 5 years	9
5 to 10 years	11
More than 10 years	2
Average length of service—57.3 months	
<i>Age at Original Appointment^b</i>	
Under 35	3
35-44	11
45-54	12
55-60	4
Over 61	4
<i>Political Affiliation</i>	
Democrats	19
Republicans	13
Independents	2
<i>Educational Background</i>	
College or university experience	7
Graduate of Naval or Military Academy	4
BA, BS, or PhB	16
MA, MS, or LLM	2
PhD	1
<i>Legal Training</i>	
Private or Office Study	1
LLB	16
JD	2
BA in Jurisprudence	1
<i>Primary Occupation</i>	
Government service	11
Law	10
Business	4
Journalism	3
Military	2
Education	2
Engineering	2

^aThis does not include those seven men presently serving on the FCC.

^bTwo members of the FCC had their original appointments on the Federal Radio Commission that preceded the FCC.

² Senate Document 144, 73d Congress, 2d Session (Washington: Government Printing Office, 1934), p. 1.

PUBLIC UTILITIES FORTNIGHTLY

can claim more than one undergraduate degree holder. Commissioners' college training, to a remarkable degree, seems to be representative of the various educational facilities available in the United States.

Educational Background

IN regard to legal training, nineteen of the thirty-four members had some sort of formal legal schooling; and one studied law in an office. Three commissioners received their Bachelor of Laws, and a fourth attended Harvard Law School; but no other law school can claim more than one alumnus.

The combined membership of the FCC earned two master's degrees and one doctorate. Dr. Irvin Stewart received an MS from the University of Texas and a PhD at Columbia. Dr. Stewart also received an AB and LLB from the former school. Dean Charles H. King has a Master of Laws from the University of Michigan.



A review of the educational backgrounds of the FCC commissioners shows a majority received a college education. A few were real scholars; several taught in universities. Many attended local colleges. A few sought legal or graduate study—usually at more well-known institutions.

MEMBERS of the FCC show a variety in their careers just as they do in their educational preparations. But, in general, a "typical" commissioner has had prior experience in law and government service. It is also likely that he has participated in politics and held a government office on the local, state, or federal level. While "primary occupations" of commissioners have been noted in Table I, this does not always indicate the depth of these men. For example, before joining the FCC, Paul A. Porter had been a legal counsel for the Columbia Broadcasting System, with the Office of Price Administration, and publicity director of the 1944 Democratic presidential campaign; Robert E. Lee was an FBI agent and accountant; James L. Fly argued the constitutionality of the Tennessee Valley Authority before the Supreme Court in a number of cases as head of the TVA legal department; and George C. McConnaughey was a corporation lawyer and chairman of the Ohio Public Utilities Commission. But all have primary occupation "lawyer" or "attorney."

Prior Public Utility Experience

TO the best knowledge of the writer, none of the thirty-four commissioners had worked for a public utility before their appointment to the FCC.

However, six FCC commissioners had

AN ANALYSIS OF THE FCC MEMBERSHIP

prior service on state public utility commissions of various types. John C. Doerfer was the chairman of the Wisconsin Public Service Commission from 1949 to 1953 when he went to the FCC. Richard A. Mack was a member of the Florida Railroad and Public Utilities Commission (1947-55) immediately prior to his appointment to the FCC. George C. McConnaughey had been the chairman of the public utilities commission of Ohio from 1939 to 1945 and for a three-year period during that time served on the Ohio War Transportation Committee. He was president of the National Association of Railroad and Utilities Commissioners, 1944-45. These three men—Commissioners Doerfer, McConnaughey, and Mack—were President Eisenhower's first three appointments to the FCC, and prior to this only two members had been appointed from state commissions. According to Lincoln Smith, President Eisenhower also relied heavily on state commissions for his appointments to other regulatory agencies.³

EUGENE H. MERRILL, appointed to the FCC in 1952, had prior experience as the chief engineer of the public service commission of Utah, 1935-41, and as construction engineer, 1941-45. He was also the chief of the telephone production branch of the War Production Board, 1941-45. From 1945 to 1950 he was the chief of the communication office with the U. S. High Commission in Germany.

Ray C. Wakefield and Paul A. Walker were the two other members who had state public utility commission experience.

Commissioner Wakefield, who was a member of the California Railroad Commission from 1937-41 and chairman, 1938-40, served on the FCC from 1941 to 1947. Paul A. Walker, an original member of the FCC to 1953, had been chairman of the Oklahoma State Corporation Commission, 1931-34. Earlier he was an attorney for that commission, 1915-19, and special counsel for the Oklahoma Corporation Commission.

Prior Experience Possessed

EIGHT commissioners have had prior regulation experience with the staff of the FCC, usually in the engineering or legal departments. Robert Bartley, a present member of the commission, served as the first director of the telegraph division of the FCC, 1934-37. Prior to that he had been special counsel for the House Committee on Interstate and Foreign Commerce which investigated public utility holding companies. He was executive secretary of the investigation staff, 1932-35, that prepared legislation for the pipeline common carrier (ICC), the Communication Act of 1934 (FCC), and the Securities and Exchange Commission (SEC). With Commissioner Walker, Mr. Bartley was involved in the FCC telephone rate investigation begun in 1934.

A current member, T. A. M. Craven, had extensive radio engineering experience with the Navy, FRC, and was chief engineer of the FCC from 1935 to 1937. He served on the FCC, 1937-44, and then returned to private business as an engineering consultant. He was appointed to the FCC again in 1956.

FREDERICK W. FORD, presently serving, joined the FCC staff in 1947. He had

³ "Professional Qualifications for Federal Regulatory Commissioners," by Lincoln Smith, *PUBLIC UTILITIES FORTNIGHTLY*, December 9, 1954, Vol. 54, No. 12, p. 759.

PUBLIC UTILITIES FORTNIGHTLY



experience in the hearing and review section, the special legal and technical group (now office of opinions and reviews) and in the general counsel's office. Later he became the first chief of the Broadcast Bureau and was appointed to the FCC in 1957. Both Charles R. Denny, 1945-47, and Rosel H. Hyde, presently serving, were chief counsel to the FCC before their appointments as commissioners. Commissioner Hyde has worked for the FCC since its creation in 1934.

The three remaining members who had FCC engineering staff experience before their appointments were E. K. Jett, who was an engineer with both the FRC and FCC; George E. Sterling, who was a radio inspector with the Department of Commerce and engineer with the FCC; and Edward M. Webster, who was the chief of the communication office of the U. S. Coast Guard and assistant chief engineer of the FCC. Both Jett and Sterling rose to chief engineer before being named to the commission.

Experience Gained Elsewhere

SEVEN other commissioners have had what might be described as "periph-

eral" public utility experience. Thad H. Brown was the chief counsel of the Federal Power Commission and a member of the Federal Radio Commission before his appointment to the original FCC. John S. Cross, presently serving on the FCC, was assistant chief of telecommunications for the Department of State before his appointment to the FCC.

James L. Fly headed the legal department of the Tennessee Valley Authority and defended its constitutionality in a number of cases before the Supreme Court prior to his appointment. Frieda B. Hennock, before appointment to the FCC, was assistant counsel to the New York State Mortgage Commission, 1935-39.

FRANK R. McNINCH was a member, 1930-33, chairman, 1933-37, of the Federal Power Commission before joining the FCC. Dr. Irvin Stewart had four years' experience as chief of the Electrical Communications Treaty Division of the Department of State and participated in several international radio conferences prior to his appointment as a member of the original commission.

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AN ANALYSIS OF THE FCC MEMBERSHIP

Frederick I. Thompson served as an adviser to President Franklin Roosevelt's Board on Public Works in 1933 before his appointment to the FCC in 1939.

THE thirteen FCC commissioners and their backgrounds not mentioned above are: Norman Case, governor of Rhode Island; Wayne Coy, a journalist, government officeholder, and broadcaster; Clifford J. Durr, who was a lawyer with the Reconstruction Finance Corporation and Defense Plant Corporation; Hampson Gary, lawyer and diplomat; Robert F. Jones, lawyer and Ohio Congressman; Charles H. King, dean of the Detroit Law College; Robert E. Lee, lawyer and director of service and investigations on the House Appropriations Committee; Newton Minow, lawyer and administrative assistant to Adlai Stevenson; George H. Payne, journalist and politician; Paul A. Porter, lawyer and government officeholder; Anning S. Prall, Congressman from New York; Eugene O. Sykes, lawyer and judge (but he was also on the FRC before the FCC was created); and William H. Wills, governor of Vermont.

Summary and Conclusions

WHILE to the best knowledge of the writer, no FCC commissioner to 1961 has had actual experience working for a public utility, nearly half (fourteen of thirty-four) have had prior experience on a state public utility commission or on the FCC staff before their appointments. In addition to this "direct" experience with the complicated field of government regulation, seven other members have had some sort of "peripheral" experience in communications or other fields related to public utility regulation.

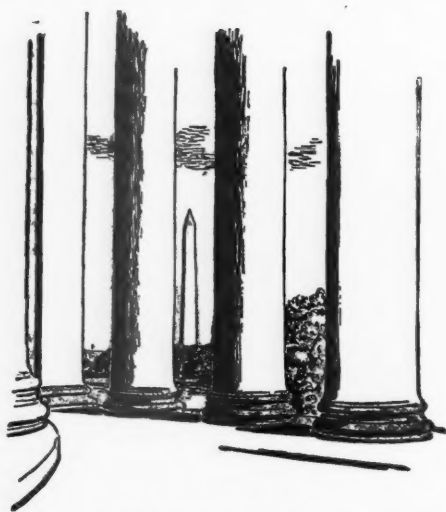
All but one member of the FCC, from 1934 to October, 1961, served in federal or state government offices prior to their appointments. (This one, Charles H. King, was a candidate for public office but was not elected.) Lawyers have served more frequently than men from any other occupational group. Different "types" of lawyers and legal backgrounds are represented. Businessmen, journalists, engineers, educators, and career military officers have also been appointed. While some commissioners have later taken jobs with utility or broadcasting companies, none have left high management positions with such organizations to join the FCC.

"ADDICTION to a softheaded philosophy that federal money can cure every national ill could undermine one of the greatest resources of America—the sturdiness of and self-dependence of the individual citizen; it could ultimately cost our people their liberty.

"The unending drive for federal domination of the nation's power and water resources, and the ever-increasing federal involvement in urban problems, agriculture, housing, care of the youth and the aged, the ill and the poor, and the temporarily unemployed, can only end—if unchecked—in a dangerous centralization of power.

"Continued, this tendency will ultimately destroy the will and the ability of the individual and community to govern themselves."

—DWIGHT D. EISENHOWER,
Former President of the
United States.



Private Utilities Offer Power To Government

OFFICIALS of the Interior Department have voiced favorable comments toward a proposal advanced by 14 Missouri river area electric utilities that the private utilities be allowed to provide electric energy to "firm up" federal power distribution in the region during periods of decreased productivity in the federal generating plants.

The federal government operates, or at least plans to operate, a large hydroelectric complex on the Missouri river which provides electric power for western Iowa, eastern Nebraska, the Dakotas, and western Minnesota. Municipalities and power concerns owned by co-operatives in this area are the recipients of the federal power. During periods of low water on the river the federal hydro plants have been unable to maintain capacity production, the private utilities say. This is the reason they have offered to provide thermal power to the government to "firm up" the federal system during these periods of decreased river flow.

Interior Department Assistant Secretary Holum recently asked for an early

Washington and the Utilities

meeting between federal and utility representatives at the policy-making level to discuss possible power arrangements between the two systems. Technical questions would be taken up later, he said. Holum added that department officials would meet with representatives of the utilities immediately following a department review of the study submitted by the utilities for effecting the intertie.

HOLUM was following the lead provided by Interior Secretary Udall who, on receiving the first proposal for the power exchange from the utilities, said that the project "makes sense" and was "in the best interest of everyone." The plan would not require further spending on the part of the federal government, which factor would loom large in any final Interior Department recommendation on the plan in the face of President Kennedy's announced "economy drive" within the government. Instead, backers of the plan say the effect of the exchange would be to increase federal power revenues in the Missouri river region by about \$10 million per year without additional federal investment.

WASHINGTON AND THE UTILITIES

The 14 power concerns are all investor-owned, except for one, the Omaha Light and Power District, which is municipally owned. The spokesmen for the 14 companies say the reason behind the offer to the government is to show that the private power companies can provide the needed power without the federal government building new plants and transmission lines in the region. Congress has already authorized the construction of a power transmission grid and funds for the project will probably be appropriated in the next session of Congress which starts in January.

CONGRESS has already appropriated \$800,000 to start construction of power transmission lines in Iowa. The investor-owned companies have opposed the building of these and other transmission lines by the government, contending they already have sufficient lines to carry the power and are willing to do so for the government. They also say the construction of such parallel duplicate facilities would be a waste of both government and investor funds.

This "duplication" and "waste" were probably two of the factors which made Secretary Udall favorably endorse the initial proposal by the utility companies. Though President Kennedy did not spell out what departments or projects were to be affected by his economy program announced last month, it is expected that Udall may be under pressure to take a long second look at any project before it receives his final "OK." Udall may use reasons of "economy" in postponing or scrapping the construction of an all-federal transmission grid, and of entering into a joint federal-private agreement with the 14 Midwestern utility companies.

The utilities, in making the offer, stressed the importance of the sav-

ings to be realized by the proposed intertie. No public mention was made of building new federal generating plants along the Missouri in connection with the proposed federal transmission network, and A. Paul Thompson, president of the Iowa Power & Light Company, who made the initial offer in the name of the 14 companies, said that the present and planned (privately owned) generating capacity of power suppliers in the eastern Missouri basin was, and would be, more than adequate for the region's needs. He also said that the question at issue was of determining the most practical and economical way for steam electric systems to help the federal hydro system when the need arose.

The thinking behind the utilities' offer was that they could take care of the region's needs which the government could not fully supply, and that the construction of additional federal generating plants and transmission lines would be a poor solution to the problem since the private utilities are ready, willing, and able to fill the region's requirements without the federal government entering into what would amount to, they say, duplication of effort.

THE offer by the 14 Midwestern utilities is the latest in a recent series of moves by the investor-owned utilities that are interpreted to be aimed at effecting a working agreement with public power interests. Included in recent months have been offers by 11 utilities in seven southwestern and middle southern states to exchange seasonal surpluses of power with the Tennessee Valley Authority.

In mid-September the Edison Electric Institute announced plans for an \$8 million ten-year interconnection program designed to provide a completely interconnected national power network and avoid duplication with federal transmission lines.

PUBLIC UTILITIES FORTNIGHTLY

The most recent offer by the Missouri river basin companies would fit into this program, particularly by canceling out any plans for new federal power transmission.

Utilities, Government Ponder Nuclear Warning System

ELECTRIC utility companies are also involved with the federal government in what seems to be a developing difference of opinion over who is going to pay for the National Emergency Alarm Repeater (NEAR) system which would be installed in private homes to warn of approaching nuclear attack.

Everyone involved seems to agree on the importance of the device; the squabble is over how the financing will be handled, and who will be saddled with the final cost—the government or the investor-owned utility companies.

NEAR would operate on electrical impulses imposed on regular power lines, and might cost up to \$1 billion on a nation-wide distribution scale. Earlier the government had indicated that it would foot the cost of the signal devices, or at least part of the cost. However, civil defense officials have recommended to the administration that the entire cost should be absorbed by the utility companies.

Representatives of three major electric power organizations, the Edison Electric Institute, National Rural Electric Co-operative Association, and American Public Power Association, have said that they may refuse to go along with the new government plan for the electric systems and their customers to underwrite the cost.

A spokesman for EEI said he seriously doubted whether his association would reconsider the position his group has taken that the electric utilities should

bear none of the system's cost. A prediction that the NRECA might not approve the new plan was voiced by a high official of the association. He said that although the NRECA has made no decision as yet, it was his opinion that the organization would endorse the government's paying for the entire NEAR network. The APPA likewise said it had taken no official position on the problem to date, but believed it was doubtful its members would endorse the plan for the electric networks to finance the warning system.

Congress had earmarked \$10 million for the NEAR system in the civil defense budget this year. The money was intended to allow a start on purchasing and installing transmitters, the full cost of which is expected to be about \$50 million.

Spokesmen for the three groups indicated their primary concern about the proposal stemmed from the financial burden to utility companies which would result. They said some power supply systems, particularly small municipally owned plants and rural co-operatives, might be hard pressed to meet the cost.

CIVIL defense officials have conceded that some power companies might have difficulty in paying their share of the warning system. However, they point out that the federal government's plan is based on the expectation that the utilities would recover the costs from the rates charged their customers. In some cases this would require either higher rates for a considerable period, or a surcharge to amortize the expense by instalments similar to appliance sales or special telephone equipment and service.

The question has been raised whether state regulatory commissions would approve higher rates if utilities started to install such devices.

Telephone and Telegraph



Senate Group to Air Satellite Ownership Question

THE Senate Small Business Subcommittee has announced hearings on November 8th and 9th, at which time the question of ownership of the proposed space communications network will be investigated. Both the Senate and the House have expressed concern regarding possible violation of the antitrust laws and the Senate committee will hear representatives of the Justice Department, the National Aeronautics and Space Council, and the Federal Communications Commission on this subject.

Nine international communications common carriers have already submitted a report to the Federal Communications Commission proposing the organization of a nonprofit corporation to develop, construct, operate, maintain, and promote the use of a commercial satellite system. This proposal is sure to draw its share of attention when the committee commences its hearings.

At the core of the problem is the fear among some liberal members of Congress that such a plan would be dominated by the American Telephone and Telegraph Company. AT&T officials have denied any such intention but the fear exists with both the Justice Department and certain members of Congress.

THERE appears to be a growing feeling that rather than decide now what form the proposed satellite communications company might have, the government may hit upon an interim arrangement for ownership. Such an interim plan would enable federal funds to be used during the early stages of development, with assurances that ultimately the system would be turned over to private enterprise. This apparent switch in policy is due to the misgivings about the nonprofit corporation proposed to manage the system and the realization that a commercial system is still several years away. Both government and industry leaders appear to realize that these two reasons have reduced the urgency with which the ownership problem must be settled.

It is probable that Congress will be the deciding factor. The House Judiciary Committee, in June, held hearings on the subject and the Senate hearings, this month, may well reveal what action Congress may take when it gets back to work in January of 1962.

THE assignment of frequencies for such a system is another problem that must be settled before any conversations are relayed via satellite. This particular area is further complicated since frequency allocations are made on a world-wide

basis by the International Telecommunication Union, an arm of the United Nations. Back in 1959, the union set aside 13 bands for space use but it was understood at that time that such assignment was to be temporary. The union does not meet again until 1963 and there is growing suspicion that if Russia should attempt to put up communications satellites, she may choose to ignore the international agreement.

This, of course, is in the realm of speculation but in light of the recent Russian atomic tests, which disregarded the moratorium on such activity, it would not be surprising if the radio frequency agreements were ignored should it suit Soviet purposes.

ANOTHER aspect of the satellite communications system is the tremendous technical problems which must be overcome before a commercial system goes into operation. Still to be decided is just which specific system should be used. One school of thought has it that a large number of satellites should be placed in relatively low orbits while another group contends that fewer active repeaters should be put into higher orbits. It appears that the system will probably be of the active repeater type rather than the passive variety, such as Echo I.

Senator Russell B. Long (Democrat, Louisiana), who will act as chairman of the Senate Small Business Subcommittee investigation, has indicated that Assistant Attorney General Lee Loevinger will be the first witness, to be followed by Dr. Edward Welsh, executive secretary of the President's Space Council, Omar Crook, chairman of the communications industry committee, and S. M. Barr, a member of that same committee. The second day of the hearings Chairman Newton M. Minow

and other members of the FCC will testify. Senator Long's committee held some six days of hearings in August.

Project West Ford's Success Still in Doubt

THE Air Force has indicated that it has not been able to spot by radar or radio waves the 350 million tiny copper needles fired into space by the United States. It has been hoped that these dipoles would form a layer some 2,100 miles above the earth which would act as an artificial and jam-proof ionosphere. The practical applications of Project West Ford would be similar to those of the passive satellite Echo I, although the primary functions, it is believed, will be given over to the military.

The launching of the West Ford project has drawn some criticism, chiefly from scientists interested in the radio exploration of space. The president of the Soviet Academy of Science has charged that the experiment is "antiscientific" and could produce dangerous consequences to future satellite experiments, "especially to those with a man on board." The majority of the adverse comments have come from astronomers such as Professor K. A. Thernof of the Copenhagen University Laboratory, who has commented that "we are skeptical of the result and afraid radio-astronomy research in particular will suffer from the experiment, which apparently has been made for military reasons."

U. S. authorities, on the other hand, have stated that the experiment will not be repeated until a full evaluation of this initial test is made. The thinly spaced wires, each some 1,200 feet apart, were expected to have a life expectancy of seven years.

Financial News and Comment

By OWEN ELY



Electric Utilities to Spend \$8 Billion on Transmission Grid Through 1970

IN reply to the administration's proposal for a federal nation-wide electric grid, the investor-owned utilities have announced (through Philip A. Fleger, president of the Edison Electric Institute, and Charles E. Oakes, chairman of the EEI Committee on Power Capacity and Pooling) that they plan to spend \$8 billion on new transmission facilities through 1970, as compared with the present investment in such facilities of \$6.7 billion. Mr. Fleger pointed out that nearly all the electric power systems east of the Rocky Mountains, including 100 com-

panies in 32 states, are now interconnected, while west of the Rockies interconnected service has been in effect for several years, both in the Pacific Northwest and the Pacific Southwest. By 1970, he predicted, all the major power systems should be capable of operating on an interconnected basis. (See map on page 841.)

Many of the projected new transmission lines will operate at 345,000 volts and experiments are being conducted with voltages as high as 775,000. Pennsylvania Electric Company, a subsidiary of General Public Utilities, is now operating a 460,000-volt line as a regular part of its system.

THE 400 investor-owned electric utilities in the U. S. have been spending about \$3.2 billion a year for new plant and equipment, which is the largest amount spent by any one industry and is equivalent to about one-tenth of all new construction expenditures by American business. By 1970 the total investment in electric plant is expected to reach \$88 billion, nearly double the 1960 amount, and this will about double again by 1980. Expenditures for new construction should be at the rate of \$6.4 billion a year by 1970 and \$12 billion by 1980. About half of this amount will be generated

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PUBLIC UTILITIES FORTNIGHTLY

internally, the balance provided by sale of securities (plus temporary borrowings through bank loans).

TOTAL power output for the United States in the year 2000 (Mr. Fleger forecast) will probably be in the range of 6 to 10 trillion kilowatt-hours, depending on the rate of growth of the national economy and the rate at which new energy uses are introduced. This compares with the 1960 output of about 840 billion kilowatt-hours. This means that the average annual rate of growth (compounded) is expected to range between 5 per cent and 6.4 per cent, as compared with an average gain during the postwar period of about 8 per cent. This would seem to be a conservative estimate.

Mr. Oakes explained how data relating to the projected transmission lines to be built in the coming decade were developed. Over two years ago a task force of experts worked with the local companies in each of the regional areas to co-ordinate the various plans for construction of transmission lines, and finally the experts' material was co-ordinated at the Edison Electric Institute to produce the map. Mr. Oakes stated:

By far the greater part of these lines will be built and financed by the investor-owned electric utility companies. However, there will be a few lines that federal power agencies have already been authorized to build, and there are some others which we feel should be built—but we just don't know as of today who will finally build them.

A FEW examples of recent "forward steps" to build transmission lines were cited as follows: Last March Texas Power & Light and three other Texas utilities announced plans for a 345,000-volt "power highway" that would link

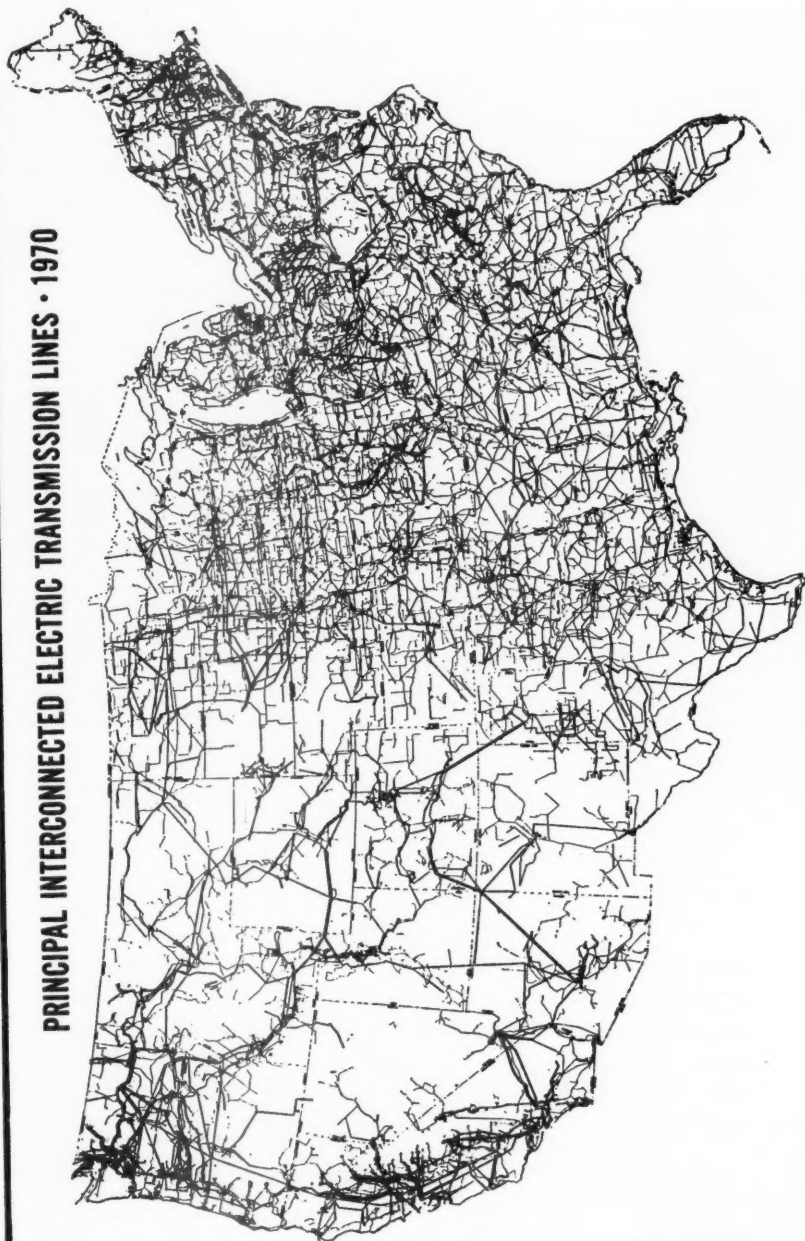
together 6.5 million kilowatts of generating capability. In April, a group of electric companies in eight Midwest and southwest states announced plans for building a "superpower grid" involving at least 4,000 miles of 345,000-volt and 230,000-volt lines. This June, Minnesota Power & Light and two other Midwest utilities announced plans for four major high-voltage interconnections costing over \$3.1 million. Four investor-owned utilities and a co-op in the Midwest recently formed the Upper Mississippi Valley Power Pool.

Mr. Fleger pointed out that the United States now has about one-third of the world's power-producing capacity, although we have only one-sixteenth of the world's population. "Although we have only about one-third of the area of the Soviet Union, we have about five times the miles of transmission lines the Russians have," he said. "The United States is well ahead of the Soviet Union in production of electricity per capita. Russia's latest revised goals for power production aim at a per capita production of about 3,000 kilowatt-hours in 1970. Our production is expected to be around 7,500 kilowatt-hours per capita that year. It is difficult to see how Russia can catch up with us in the foreseeable future."

"Trus" Hyde Considers Electric Utility Stocks Vulnerable Marketwise

AT the risk of some repetition, we summarize an interesting bulletin recently issued by "Trus" Hyde, well-known utility analyst and partner of F. S. Smithers & Company, a 104-year-old investment banking firm. He does not fear a general decline in utility earnings or consider that there is any change in the basic characteristics of electric utility

PRINCIPAL INTERCONNECTED ELECTRIC TRANSMISSION LINES • 1970



Source: Edison Electric Institute Bulletin

PUBLIC UTILITIES FORTNIGHTLY

stocks, but nevertheless feels that present-day buyers of these issues are making some false assumptions or drawing some wrong conclusions.

THE argument that typical price-earnings ratios of growth utility stocks are not as high as those of typical growth industrials does not have much weight,

he thinks, because there is a fundamental difference between the two classes of stocks. Industrial earnings are dependent on the volume of business and profit margins obtainable under competitive conditions, while the utility is a regulated monopoly whose earnings, while normally more stable, are limited as to growth. Under differing conditions of the indus-



ELECTRIC AND GAS UTILITY SECURITY OFFERINGS IN SEPTEMBER-OCTOBER

Date	Amount (Mill.)	Description	Price To Public	Under- writing Spread	Offer- ing Yield	Aver. Yield for Securities Of Similar Quality	Moody Rating	Success Of Offer- ing
<i>Bonds and Debentures</i>								
9/13	\$18	Mountain Fuel Supply Deb. (s.f.) 4½s 1986*	101.09	.90N	4.80%	4.72%	A	a
9/20	2	Rocky Mountain Natural Gas Deb. S.F. 6s 1981	.32e	2.00N	—	—	—	a
9/27	60	Pacific Gas & Electric 1st & Ref. (s.f.) 4½s 1993*	100.00	.63C	4.50	4.56	Aa	a
10/3	30	Public Service of Colorado 1st 4½s 1991*	101.32	.64C	4.42	4.53	Aa	a
10/4	15	Gulf States Utilities Deb. (s.f.) 4½s 1981	100.98	.80C	4.55	4.71	A	c
10/5	20	Northern Indiana P. S. Conv. Deb. 4s 1976	100.00	.16N	4.00	4.71	A	f
10/18	50	Public Service E. & G. Deb. (s.f.) 4½s 1981*	102.34	.77C	4.57	4.71	A	d
10/19	10	Georgia Power 1st (s.f.) 4½s 1991	100.89	.98C	4.57	4.71	A	b
10/19	4	Wisconsin Nat. Gas 1st 4½s 1986	101.47	.81C	4.65	4.71	A	a
10/25	40	Niagara Mohawk Power Gen. 4½s 1991*	101.00	.71C	4.44	4.53	Aa	d
10/26	20	New England Power 1st 4½s 1991	101.72	.85C	4.52	4.53	Aa	d
<i>Preferred Stock</i>								
10/19	7	Georgia Power \$4.96 Pfd.*	102.25	1.70C	4.85	—	—	a
<i>Common Stock—Offered to Stockholders</i>								
9/1	1	Missouri Utilities	22.00	N	4.54		Earns.- Price Ratio	g
10/17	15	Northern Natural Gas	35.00	N	4.29		6.37%	h
10/26	2	Piedmont Natural Gas	15.00	N	3.33		6.33	i
<i>Common Stock—Offered to Public</i>								
10/25	32	Niagara Mohawk Power	45.63	.85C	3.95		5.08	a

*Nonrefundable for about five years. C—Competitive. N—Negotiated. a—It is reported that the issue was well received. b—It is reported that the issue was fairly well received. c—It is reported that the issue sold somewhat slowly. d—It is reported that the issue sold slowly. e—Offered in units consisting of (a) \$20 debenture with attached warrant to buy two shares of common, and (b) two shares of common. f—Offered to common stockholders at rate of \$100 debenture for each 44 shares; 90 per cent of issue subscribed. g—Offered to common stockholders on a 1-for-10 basis and oversubscribed. h—Offered to common stockholders on a 1-for-20 basis. i—Offered to common stockholders on a 1-for-10 basis.

Source, Irving Trust Company

FINANCIAL NEWS AND COMMENT

trial cycle either group might well have a higher average price-earnings ratio than the other at a given time, while the situation might be reversed during another period of the cycle. However, except in a few cases Mr. Hyde thinks a utility can hardly be expected to enjoy the same rate of increase either in revenues or earnings as an industrial, hence the stocks should not sell at P-E ratios which discount the wide improvement which industrial companies can frequently realize during a major economic cycle.

PROFIT margins are apt to differ widely at different times for industrial companies, even those of the "blue chip" variety. Thus, if Union Carbide (with a P-E ratio of 25) had enjoyed the same profit margin in 1960 as in 1956 earnings would have been substantially higher. The same applies to General Electric. In fact, if profit margins had been sustained with resulting earnings improvement the P-E ratios themselves would be reduced from 25 to 21 in the case of Union Carbide and from 32 to 27 in the case of General Electric; and the growth rates would also be improved.

In the past five years some industrial growth companies have shown the following average annual (compounded) rates of gain in share earnings:

International Business Machines	22%
Reynolds Tobacco	15
Minnesota Mining & Manufacturing	15
American Machine & Foundry	13
Procter & Gamble	11

Moreover, some companies would show a fantastic annual rate of gain because earnings happened to be at a low amount in 1955: Thus Brunswick increased from 15 cents a share in 1955 to \$2.28 in 1960, while some other companies may have started with a deficit five years ago and made a strong comeback. On the other hand, Florida Power & Light, generally considered the leading electric growth utility, showed an average annual gain of less than 16 per cent during 1955-60; and this result was aided by the use of a bookkeeping credit representing interest charged to construction without which growth would have been less than 14 per cent. Moreover, in 1961 the company had to take a rate reduction (as it had several years previously) because it was earning too high a rate of return.

ON the average, Mr. Hyde points out, electric utilities have shown an average gain of only a little over 5 per cent during 1955-60. Based on a study of the larger electric utilities published by F. S. Smithers & Company, only 21 out

CURRENT YIELD YARDSTICKS (Standard & Poor's Indexes)

	Nov. 1, 1961	1961 Range		1960 Range	
		High	Low	High	Low
Utility Bonds—AAA	4.46%	4.56%	4.33%	4.72%	4.32%
AA	4.50	4.64	4.38	4.73	4.36
A	4.61	4.67	4.52	4.86	4.49
BBB	4.68	4.88	4.48	5.16	4.56
Preferred Stocks*	4.60	4.78	4.60	4.88	4.57
Utility Common Stocks	3.03	3.62	3.03	4.11	3.61
Yield Spread: AAA Bonds					
Exceeded Common Stocks ..	1.43	0.94	1.30	0.61	0.71

*Twelve industrial and two utility issues (high-grade).

PUBLIC UTILITIES FORTNIGHTLY

of 78 companies increased their earnings as much as 8 per cent or more. Of these, nine increased their return on net plant account—which could not be continued indefinitely without raising the possibilities of rate cuts. And during the past year the average P-E ratio for electric utility stocks has jumped from around 17 to over 23, though in the previous five years it had increased only from 15 to 17.

ANOTHER point brought out by Mr. Hyde is that some of the average growth in share earnings during 1955-60 was due to rate increases. He thinks most utilities are now earning an adequate return, and that the possibility of rate cuts in future must not be overlooked, if return on investment continues to increase. He concludes that despite anticipated new economies and efficiencies utility managements may not be able to maintain the rate of improvement in earnings of the past five years. Hence he concludes that the latest price advance "has finally brought prices to levels which are not now warranted by current values or prospects. When this becomes generally recognized by investors, the limited availability of utility stocks which, com-

bined with a continuing increase in demand, has contributed to their market strength may be reversed."

Anticipated Growth Rate for Electric Output 7 Per Cent For 1960-64

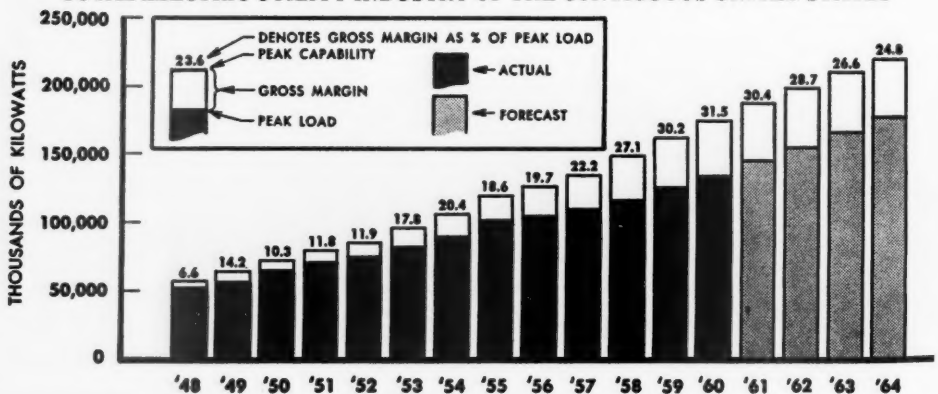
THE latest Electric Power Survey, issued in October by the Edison Electric Institute (publication No. 61-54), indicates the following anticipated compound annual rates of growth in electric output, based on the institute's projections for 1964 output:

ENERGY OUTPUT (BILL. KWH.)

Region	1960	1964 Est.	Four-year Average Annual Gain
I Northeast	147	188	6.4%
II East Central .	148	185	5.7
III Southeast	146	192	7.2
IV North Central	85	108	6.2
V South Central	75	107	9.4
VI West Central.	15	22	9.7
VII Northwest ...	60	83	8.4
East Div.	11	15	8.0
West Div. ...	49	68	8.6
VIII Southwest ...	75	101	7.8
U. S. Total*	765	1,003	7.0%

*Total electric utility industry of the contiguous United States.

DECEMBER PEAK CAPABILITIES, PEAK LOADS, AND GROSS MARGINS—
TOTAL ELECTRIC UTILITY INDUSTRY OF THE CONTIGUOUS UNITED STATES



FINANCIAL NEWS AND COMMENT

Additions to generating capacity now scheduled (including the entire year 1961) are as follows:

Years	Total No. of Units*	Total Kw.*	Average Kw. Per Steam Unit
1961	129	12,508,000	108,000
1962	112	11,372,000	142,000
1963	95	10,760,000	156,000
1964	55	7,922,000	191,000
1965 & Later	42	9,078,000	364,000
Total	433	51,640,000	159,000

*Including hydro units.

THE total number of units includes many hydro units of small capacity, hence in working out the average kilowatt per unit hydro is omitted. The capacity of the average hydro unit does not change much from year to year as efficiency remains about the same, and the capacity for the 179 units now scheduled for installation in 1960 and later averages only 63,000 kilowatts compared with 159,000 kilowatts for all steam units. As previously mentioned in this

department, Consolidated Edison has recently ordered a 1 million kilowatt steam-generating unit from Allis-Chalmers.

Regarding atomic power, six projects with a combined nominal rating of almost 400,000 kilowatts are now in operation and four additional projects with a combined rating of 55,000 kilowatts are expected to go into operation during the balance of this year. In 1962 eight plants with a combined rating of about 666,000 are scheduled for operation; and during the three years 1963-65 five more plants with a total rating of about 800,000. Another project with a probable rating of 200,000-300,000 kilowatts is in the planning stage. Thus the total now scheduled is 24 projects with over 2 million kilowatts, or an average of 84,000 kilowatts per unit. Sixteen of the projects are associated with investor-owned systems, three with nonfederal government-owned systems, two with co-operative organizations, and three are located at Atomic Energy Commission installations.



FINANCIAL DATA ON ELECTRIC UTILITY STOCKS

Approx. Rev. (Mill.)		10/30/61 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	Per Cent Increase In Share Earnings	Price- 5-yr. Avg.	Price- Ratio	Div. Pay- out	Approx. Book Value
\$159	S Allegheny Power System ..	49	\$1.70	3.5%	\$2.37Au	—	3%	20.7	72%	\$18
338	S American Elec. Power	73	1.96c	2.7	2.46Se	—	6	29.7	80	24
74	S Arizona Pub. Service	42	.72	1.7	*1.05Je	*10	* 9	*40.0	69	19
14	O Arkansas Mo. Power	27	1.08	4.0	1.45Je	3	5	18.6	74	11
40	S Atlantic City Elec.	51	1.36	2.7	*1.68Au	*12	* 9	*30.4	81	12
175	S Baltimore G. & E.	36	1.12	3.1	1.58Se	11	8	22.8	71	13
9	O Bangor Hydro-Elec.	21	.80	3.8	1.19Se	8	9	17.6	67	30
7	O Black Hills P. & L.	43	1.80	4.2	2.56Ap	D2	3	16.8	70	21
124	S Boston Edison	81	3.00	3.7	4.11Je	2	4	19.7	73	52
34	A Calif. Elec. Power	24	.84	3.5	*1.15Se	*12	* 3	*20.9	73	12
25	O Calif. Oreg. Power	62	1.60	2.6	*2.15F	*20	*	*28.8	74	27
11	O Calif. Pac. Util.	26	.90	3.5	1.181y	D17	1	22.0	76	13
82	S Carolina P. & L.	60	1.64	2.7	2.38Se	5	6	25.1	69	21
37	S Central Hudson G. & E. ..	34	1.04	3.1	*1.52Se	* 4	* 7	*22.4	68	14
27	O Central Ill. E. & G.	31	.88	2.8	1.28Se	10	6	24.2	69	16
45	S Central Ill. Light	49	1.52	3.1	1.91Se	D21	3	25.7	79	19
63	S Cent. Ill. Pub. Service	78	2.12	2.7	3.06Se	3	5	25.5	69	21
22	O Central Louisiana Elec. ...	37	1.00	2.7	1.37Je	12	7	27.0	73	11
44	O Cent. Maine Power	35	1.52	4.3	2.11Se	* 6	* 2	*16.6	72	25
173	S Cent. & South West	44	1.02	2.3	1.43Se	D1	7	30.8	71	9
13	O Cent. Vermont P. S.	24	1.08	4.5	*1.32Je	*D5	* 3	*18.2	82	14
153	S Cincinnati G. & E.	50	1.50	3.0	2.27Je	—	3	22.0	66	16
10	O Citizens Util. "B"	29	.60	2.1	.84Je	15	8	34.5	71	6

PUBLIC UTILITIES FORTNIGHTLY

Approx. Rev. (Mill.)	(Continued)	10/30/61 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	Per Cent Increase In Share Earnings Re- cent	5-yr. Avg.	Price- Earnings Ratio	Div. Pay- out	Approx. Book Value
136	S Cleve. Elec. Illum.	69	2.00	2.9	2.89Je	D7	4	23.8	69	25
8	O Colo. Cent. Power	53	.96	1.8	1.37Je	17	10	38.7	70	12
57	S Columbus & S. O. E.	70	2.00	2.9	3.15Se	10	6	22.2	63	25
469	S Commonwealth Edison	45	1.00	4.2h	1.98Se	4	10	22.7	51	35
17	A Community P. S.	46	1.00	2.2	1.56Se	3	5	29.5	64	13
89	O Conn. Lt. & Power	33	1.20	3.6	*1.45Se	*D4	* 6	*22.8	83	15
656	S Consol. Edison	82	3.00	3.7	*3.64Se	*D5	* 5	*22.5	82	50
281	S Consumers Power	80	2.60	3.3	3.67Se	2	2	21.8	71	36
96	S Dayton P. & L.	30	.88	2.9	1.22Je	13	3	24.6	72	31
55	S Delaware P. & L.	54	1.20	2.2	1.77Se	9	8	30.5	68	14
279	S Detroit Edison	63	2.20	3.5	2.71Se	5	2	23.2	81	28
167	S Duke Power	62	1.60	2.6	2.12Je	D5	7	28.3	75	22
105	S Duquesne Light	33	1.18	3.6	*1.54Se	* 1	* 5	*21.4	77	10
38	O East. Util. Assoc.	46	2.20	4.7	2.57Je	D8	—	17.9	87	26
3	O Edison Sault Elec.	19	.90	4.7	1.18Se	15	—	16.1	76	10
19	O El Paso Electric	30	.62	2.1	.86Se	D2	9	35.0	72	12
13	S Empire Dist. Elec.	47	1.52	3.2	2.10Se	9	7	22.4	72	17
68	S Florida Power Corp.	48	.88	1.8	1.39Se	9	12	34.5	63	11
173	S Florida P. & L.	79	1.12	1.4	2.13Se	2	15	37.1	53	17
4	O Florida Pub. Util.	26	.72d	2.8	1.24Je	D8	7	21.0	58	11
205	S General Pub. Util.	35	1.20	3.4	*1.56Je	*D2	* 5	*22.4	77	15
7	O Green Mt. Power	18	.80	4.4	.93Je	D2	4	19.4	85	13
86	S Gulf States Util.	45	1.00	2.2	1.29Se	D7	5	34.9	77	13
54	A Hartford Electric	74	3.00	4.1	*3.92Se	*15	1	*18.9	76	43
31	O Hawaiian Electric	105	2.76	2.6	3.62Je	4	5	29.0	76	37
116	S Houston L. & P.	117	1.60	1.4	3.19Se	D3	5	36.7	50	24
38	S Idaho Power	37	1.00	2.7	1.46Se	12	6	25.3	68	29
110	S Illinois Power	82	2.20	2.7	3.06Se	5	11	26.8	72	20
56	S Indianapolis P. & L.	64	1.90	3.0	2.71Se	2	7	23.6	70	19
34	S Interstate Power	24	.95	4.0	1.16Se	D1	4	20.7	82	9
46	S Iowa Elec. L. & P.	57	1.80	3.2	2.68Se	2	5	21.3	67	21
51	S Iowa-Illinois G. & E.	48	1.90	3.9	2.53Se	D3	3	19.0	75	20
51	S Iowa P. & L.	48	1.60	3.3	2.18Je	D9	2	22.0	73	20
42	O Iowa Public Service	27	.96	3.6	1.39Se	17	5	19.4	69	11
17	O Iowa Southern Util.	37	1.48	4.0	2.05Se	D5	4	18.0	72	21
68	S Kansas City P. & L.	81	2.32	2.9	3.45Se	6	6	23.5	67	31
37	S Kansas G. & E.	66	1.68	2.5	2.88Se	8	7	22.9	58	23
57	S Kansas P. & L.	53	1.48	2.8	2.40Se	D3	7	22.1	61	19
49	O Kentucky Util.	47	1.72	3.7	2.82Se	6	6	16.7	61	22
8	O Lake Superior D. P.	30	1.28	4.3	1.84Je	6	4	16.3	70	18
145	S Long Island Ltg.	55	1.50	2.7	*2.18Se	—	*10	*25.2	69	20
71	S Louisville G. & E.	71	1.52	2.1	2.67Je	D1	8	26.6	57	22
13	O Madison G. & E.	39	1.00	2.6	2.16Je	6	3	18.1	46	21
5	A Maine Pub. Service	20	.96	4.8	1.24Se	10	4	16.1	79	14
8	O Michigan G. & E.	93	2.00e	5.5e	5.60Je	3	8	16.6	36	29
215	S Middle South Util.	40	1.06	2.7	1.54Se	6	10	26.0	69	14
35	S Minn. P. & L.	43	1.60	3.7	2.35Se	D3	5	18.3	68	21
16	S Missouri P. S.	26	.72f	4.8f	1.02Je	D10	5	25.5	71	8
9	O Missouri Util. I	26	1.00	3.8	1.36Je	9	2	19.1	71	19
49	S Montana Power	41	1.12	2.7	1.49Je	8	6	27.5	75	10
9	O Nevada Power	50	.84m	1.7	1.56Se	14	5	32.1	54	15
180	S New England Elec.	25	1.08	4.3	1.35Je	D2	2	18.5	81	15
55	O New England G. & E.	33	1.24	3.8	1.87Se	7	6	17.6	66	18
110	S N. Y. State E. & G.	44	1.30	2.9	*2.11Se	*16	* 8	*20.9	62	19
299	S Niagara Mohawk Power ..	46	1.80	3.9	*2.32Se	* 4	—	*20.0	78	23
124	O Northern Indiana P. S.	43	1.20	2.8	1.82Se	8	5	23.6	66	28
183	S Northern Sts. Power	36	1.18	3.3	1.53Se	3	5	23.5	77	12
13	O Northwestern P. S.	30	1.20	4.0	1.60Je	D9	5	18.8	75	13
160	S Ohio Edison	46	1.60	3.5	2.17Se	2	4	21.2	74	17
62	S Oklahoma G. & E.	47	1.20	2.6	1.54Se	9	5	30.5	78	11
31	S Orange & Rockland Util. ..	55	1.20	2.2	*1.78Se	*6	*12	*30.9	67	14
20	O Otter Tail Power	40	1.80	4.5	2.26Je	D4	2	17.7	80	25
648	S Pacific G. & E.	100	2.80	2.8	*4.51Je	*16	* 5	*22.2	62	42
63	O Pacific P. & L.	53	1.80	3.4	*2.24Au	*12	* 5	*23.7	80	20
142	S Penn. P. & L.	34	1.25	3.7	1.73Se	D3	4	19.7	72	13
273	S Phila. Electric	35	1.20	3.4	*1.53Se	* 7	* 4	*22.9	78	28

FINANCIAL NEWS AND COMMENT

Approx. Rev. (Mill.)		(Continued)	10/30/61 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	Per Cent Increase In Share Earnings Re- cent 5-yr. Avg.		Price- Earnings Ratio	Div. Pay- out	Approx. Book Value
45	O	Portland Gen. Elec.	51	1.52	3.0	2.19Se	10	5	23.3	69	19
89	S	Potomac Elec. Power	45	1.44	3.2	*2.00Se	* 2	* 6	*22.5	72	20
113	S	Pub. Serv. of Colo.	92	2.10m	2.3	*3.53Je	*32	* 4	*26.1	59	26
394	S	Pub. Serv. E. & G.	68	2.00	2.9	*3.33Se	*32	* 4	*20.4	60	28
92	S	Pub. Serv. of Ind.	65	2.20	3.4	2.77Se	7	2	23.5	79	28
35	O	Pub. Serv. of N. H.	25	1.08	4.3	1.42Se	2	2	17.6	76	14
20	O	Pub. Serv. of N. M.	38	.72	1.8	1.03	3	11	36.9	70	13
37	S	Puget Sound P. & L.	40	1.56	3.9	*1.98Je	*D6	* 7	*20.2	79	23
76	S	Rochester G. & E.	59	1.80b	6.16	*3.11Se	* 7	* 8	*19.0	58	32
11	S	St. Joseph L. & P.	39	1.60	4.1	2.14Je	D6	8	18.2	75	19
81	S	San Diego G. & E.	38	1.20	3.2	1.52Se	D21	9	25.0	79	19
12	O	Savannah E. & P.	35	1.12	3.2	1.40Ap	14	4	25.0	80	14
14	O	Sierra Pacific Pr.	35	.88	2.5	1.06Se	D17	12	33.0	83	9
306	S	So. Calif. Edison	94	2.60k	2.8	*4.65Se	* 5	* 7	*20.2	56	44
56	S	So. Carolina E. & G.	56	1.50	2.6	2.07Je	4	8	27.1	72	19
297	S	Southern Co.	60	1.50	2.5	2.00Se	D1	7	30.0	75	17
22	S	So. Indiana G. & E.	49	1.70	3.5	2.71Au	8	3	18.1	63	23
4	O	Southwestern E. S.	22	.76	3.5	1.00Se	—	5	22.0	76	8
53	S	Southwestern P. S.	35	1.00	2.9	1.12Se	D2	8	31.2	89	7
41	A	Tampa Electric	43	.80	1.9	1.22Se	2	12	35.2	66	11
202	S	Texas Util.	110	2.08	1.9	3.21Se	4	9	34.3	65	22
49	S	Toledo Edison	26	.70	2.7	1.14Se	5	1	22.8	61	10
20	O	Tucson G. E. L. & P.	47	.80	1.7	1.06Se	D12	9	44.3	75	9
159	S	Union Electric	49	1.80	3.7	*2.22Se	* 2	* 7	*22.1	81	18
40	O	United Illuminating	33	1.40	4.2	*1.69My	*D3	* 2	*19.5	83	16
8	O	Upper Peninsula Pr.	37	1.70	4.6	2.31Ma	20	—	16.0	74	20
53	S	Utah Power & Light	40	1.32	3.3	1.82Au	D4	4	22.0	73	20
161	S	Virginia E. & P.	66	1.30	2.0	*1.95Se	* 7	* 8	*33.8	67	16
40	S	Wash. Water Pr.	52	2.00	3.8	*2.47Se	* 5	* 3	*21.1	81	29
87	O	West Penn Power	80	3.20	4.0	3.62Je	3	2	22.1	88	26
14	O	Western Lt. & Tel.	35	1.20	3.4	1.80Se	3	6	19.4	67	29
34	O	Western Mass. Cos.	27	1.20	4.4	1.56Se	D2	1	17.3	77	19
141	S	Wisc. El. Pr. (Cons.)	56	1.90	3.4	2.71Je	1	3	20.7	66	29
48	O	Wisconsin P. & L.	45	1.60	3.6	2.35Se	D1	8	19.1	68	21
48	S	Wisconsin P. S.	40	1.40	3.5	2.03Se	D1	4	19.7	69	18
Averages					3.2%		3%	6%	23.5	72%	

Foreign Companies

127	S American & Foreign Pr. ...	10	\$.50	5.0%	\$1.54Je	52%	0%	6.5	32%	33%
161	A Brazilian Traction	3½	—	—	.98De	70	—	3.6	—	29
103	A British Col. Power	33	1.60	4.8	2.37De	D5	3	13.9	67	32
26	O Calgary Power	26	.40	1.5	1.09De	14	13	23.8	37	6
26	O Canadian Inter. Power	12	.50	4.2	3.55Je	D2	NC	4.3	14	24
19	A Gatineau Power	35	1.60	4.6	2.25De	13	2	16.6	71	22
17	A Quebec Power	34	1.60	4.7	2.53De	8	9	13.4	63	27
83	A Shawinigan Water & Pr. ..	24	.80	3.3	1.54De	6	6	15.6	52	19

*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher, and the rate of increase in share earnings would be smaller. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. b—Also 3 per cent stock dividend (paid January 25, 1961) included in the yield; similar dividends are paid annually, representing balance of earnings. c—Also 2½ per cent stock dividend January 10, 1961. d—Also 2 per cent stock dividend May 1, 1961. e—Also regular annual 3.3 per cent stock dividend (3 per cent in previous years), included in the yield. f—Also regular stock dividend of one-half per cent quarterly, included in yield (paid since 1956). h—Also 2 per cent stock dividend payable November 1, 1961, included in yield; stock dividends are paid annually, reflecting balance of earnings. j—The rate of increase would be 12 per cent if the present number of shares had been used to compute share earnings of past years, instead of using the number of shares actually outstanding at the end of each year. k—Also 4 per cent stock dividend February 24, 1961. l—Adjusted for 50 per cent stock dividend June 5, 1961. m—Fifty per cent stock dividend payable January 18, 1961—cash dividend on new stock 84 cents. n—Also 5 per cent stock dividend February 17, 1961. o—Adjusted for 13-for-10 stock split record June 27, 1961.



What Others Think

Purposes of Regulation Explained

"ALTHOUGH we will soon be bouncing messages off the moon, it is the old, commonplace wire and cable method of (communications) transmission that keeps the cash registers ringing for our many independent telephone companies."

So said Peter E. Mitchell, member of the California Public Utilities Commission, during his address, entitled "Your Investment in Regulation," before the United States Independent Telephone Association at Chicago early in October.

Instead of looking forward "into the Jules Verne era" or the satellite age, Mitchell said he was going to keep both feet on the ground and discuss such commonplace, everyday matters essential to the successful operation, under regulation, of the telephone business.

"Under regulation" are two big, meaningful words to those engaged in the management of telephone properties, said Mitchell. The responsibilities to serve the public without discrimination and at fixed rates are the features which distinguish the "public utility" business from what is generally referred to as "private" business.

Telephone executives should remember that a public utility exercises an extraordinary privilege granted to it by the state, and it occupies a privileged position, since it is charged with administering a

public trust. Commissioners charged with the duty of regulating public utilities are likewise charged with a public trust, Mitchell added.

THE early regulation of public utilities was essentially restrictive in character, he continued. Both in statutory provisions and commission activity there was an underlying assumption that only the interests of the consumers required protection. Little or no attention was given to the claims of investors or to the long-term ability of the corporation to raise new capital.

In a country where liberty and freedom to control one's individual property is so important, the rationalizing of the justification for the extreme restrictions upon the conduct of certain selected business has been an agonizing one, Mitchell explained. In times of good business and general prosperity, the "fetters of regulation" are considered to be irritating; in times of recession and depression, "they are sought as a haven," he said.

Mitchell defined the purpose of regulation as "to preserve and promote those services which are indispensable to large segments of our population, to prevent excessive and discriminatory rates and inferior service, and to allow a reasonable

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opportunity to make a reasonable profit on a reasonable investment."

Failure to comprehend the realities involved, he warned the telephone convention, and refusing to co-operate with and indifference to the success of the regulatory system, both federal and state, could lead to but one eventuality—nationalization of the telephone industry. Failure of the regulatory system would bring the country to the brink of Socialism.

THE regulator and those who are regulated have much in common where the reputation of regulatory commissions is the issue, he continued. The efficiency and integrity of regulatory commissions' operations are basic to the continual economic development of this country under a system of private enterprise. Promoting efficiency and preserving the integrity of the regulatory system are real and important reasons why the members of the USITA must maintain a constant appraisal of the standards and procedures of all regulatory commissions.

From his point of view, Mitchell said that "the people of our country are fairly well satisfied with the way the investor-owned public utility industry operates under existing state and federal regulatory laws."

Though one might consider the situation well in hand, he said, alert and aggressive management dictates constant vigilance.

SPEAKING of the "space age" and the great strides which the communications industry would take in this period, Mitchell noted that telephone companies of the future would be bigger, would have more difficult technical requirements, more intense competition, a more complex overall operation, and the job of managers and executives would be vastly more difficult. Telephone companies, he con-

tinued, would be confronted with problems which would involve all legislative and regulatory bodies and financial institutions in new and unique situations which can only be resolved by "the exercise of patience, intelligence, and ingenuity."

These problems which will face the telephone industry will bring greater challenges than those generated in the engineering and technical fields.

Naturally, he stated, to successfully meet the many challenges of growth and management, the industry must be making a profit. Adequate profits constitute the key to continued growth and development of a public utility. "There is nothing suspect about making a profit," he indicated. "It is the best indication of a healthy business." Making known the fact that a public utility has had a profitable year is not only good news for the stockholders, but also it is reassuring to public utility commissioners, particularly if it confirms their decision.

HE told the USITA that it is both interesting and important to note that the independent telephone industry is faced with a 25 per cent greater telephone growth problem than is the Bell system. The increase in Bell system telephones was 4.8 per cent in 1960, while the increase in the independent industry was 6 per cent. This is undoubtedly due, he said, to the growth of America and its suburban areas where independents historically have their service rather than in the big cities.

Such advances in the art of telephony such as data-processing machines, microwave beams for transmitting information, space communications satellites, electronic switching, and others, should make the telephone industry realize that society benefits most if regulation serves also to encourage innovation and growth.

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But progress also breeds problems, Mitchell pointed out. "We are having to live with new styles of communication service, much of it traditional service in a new wrapping and with new coined word tags," such as WATS, WADS, Telpak, and Dataphone. These advances will lead to new methods of merchandising and pricing of voice and data communication—and also lead to new problems, particularly for the small independent telephone companies.

Though the independent telephone companies will not be entering into the launching and operating of space communications satellites, they will soon have to be thinking about the effects of these new voice and data communications advances, Mitchell emphasized. These and other rapidly occurring inventions will have great influence on future operations, especially because these service improvements will have a "compelling impact" on toll users.

To meet the problems and to seize the opportunities occasioned by these many improvements and inventions in the art of telephony, he stated, management will have to be alert and progressive. In the face of competition not dreamed of a few years ago, independent telephone company executives will have to show a progressive attitude and a practical flexibility to conform with the requirements of a buyer's market. Virtually all companies in the independent telephone industry, if they are to extract the full potential from every dollar invested, will have to put more emphasis and effort into selling the product—communication in many forms. All of these new services will have sales appeal, he said, and will be desired and demanded by the public. All these offerings should be such that the independents may fully participate and yet be equitably compensated.

In order that the telephone industry remain firm and strong on a private ownership basis, he said that all segments of the industry should make certain that the exchange rate levels in comparable territories have received thoughtful and compensatory considerations. Some of the independents, Mitchell continued, are operating single exchanges where there is no source of revenue except what is secured through the exchange earnings of the exchange, or from the toll settlements. Other concerns that have exchange rates on a comparable compensatory level because they have big city earnings on which to fall back, may well give consideration to this aspect of rate comparison, he added.

ANOTHER facet of this problem which he said should receive careful treatment, is that the independent exchange owner be fully compensated for his participation in the toll network, and if there be error in this matter, it should be on the side of overcompensation rather than undercompensation, for the good of the whole industry. Mitchell said:

... In making this statement, I am looking at the problem from the broad viewpoint of the public interest in order that justice may be done not only to the large integrated communication system but to the thousands of independently owned companies whose financial health and well-being is an essential ingredient to the maintenance of a sound, privately owned communication network in the United States. We need strong, financially healthy independents in this country if the free enterprise system is to survive. . . .

IN conclusion, he said that the phenomenal growth of the nation's communi-

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cation system is attributable in part to the "unfailing industry and alertness" of the independent telephone companies. Through the USITA, Mitchell believed, a nation-wide awareness of the obliga-

tions of the telephone industry, and of a public utility in general, has been inspired and encouraged, and the public has been constantly reminded that operating a public utility is a public trust.

Public Utility Law Precedents Set By Water Company Cases

A CHICAGO attorney, Charles A. Bane, has pointed out in a recent article that a good number of the basic principles of public utility law have been established by the nation's higher courts in proceedings involving water companies. Bane's viewpoint is contained in the article "The Water Companies Make Public Utility Law Again," as published in *Water & Sewage Works* magazine for August, 1961.

The theory advanced that decisions in water company cases form the basis for much public utility law can best be seen, says Bane, by taking those cases which have been heard before the U. S. Supreme Court between 1920 and the present.

Among the cases which he cites are: (1) The Ben Avon opinion (Ohio Valley Water Co. v Ben Avon Borough in 1920, PUR1920E 814) which considered that a court must exercise its important judgment on both law and facts in utility decisions. This is despite a previous decision, (2) in the Knoxville v Knoxville Water Co. case (212 US 1), which had tended to the conclusion that a reviewing court, rather than exercising its independent judgment, should regard regulatory determinations as prima facie valid and proper. (3) The Bluefield case (Bluefield Water Works & Improv. Co. v West Virginia Pub. Service Commission, PUR1923D 11) set forth standards for fair rate of return and stressed

the importance of the capital attraction test. (4) In the case of *McCardle v Indianapolis Water Co.* (PUR1927A 15) consideration was given to the extent to which reproduction cost testimony had to be received and considered.

BANE also discusses the Alton Water Company case (*City of Alton v Illinois Commerce Commission and Alton Water Co.* 33 PUR3d 76). He feels that this very recent decision of the Illinois supreme court will be a wide-ranging decision on a number of important modern-day questions of public utility law.

The appeal decided by the court was an outgrowth of a general rate increase proposed by the Alton Water Company to the Illinois Commerce Commission with a rate schedule filing made in February, 1957, Bane explains. Three years were required for the disposition of the matter by the court; and even that did not end the case since the decision called for a remand of the matter to the commission for further consideration on certain points discussed by the court.

The opinion is a far-reaching one, Bane believes, by reason of the number of points that have been raised, some outside the record, by the intervening municipalities and customers. Perhaps one matter in the decision was more important than the others, he says, and represented a "facing up by the court" to a most difficult question, with a de-

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cision in favor of the investor-owned utility. This came about in response to protests by the interveners that fair value rate making resulted in unconscionably large returns to the common equity, particularly when that equity is a thin portion of the capitalization.

THE court responded that comparisons were not to be made with respect to the return on the book or investment value or cost of the company equity, but rather on that equity's fair or present value. The court suggested a number of ways in which the computation of such value might be made:

. . . Either actual debt costs or hy-

pothetical debt costs based on the current market might be subtracted from revenue after operating costs to produce net income allocable to equity. The fair value attributable to common stock might be determined by subtracting the par value of debt and preferred stock, to reflect the fact that all increments in value belong to equity, or by dividing fair value in the same percentages as book value. The sizable short-term debt may be considered entirely as debt or its temporary nature might be recognized by allocating part to debt and part to equity. Whatever method is chosen as most appropriate in this case the return on the fair value attributable to

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common stock falls within the range of the testimony.

"THIS was a most important point to have been decided," says Bane, since hardly a rate case proceeds, for any type of utility, in a fair value state, without comparison being made to suggest an excessive or even "outrageous" return on the equity by reason of the rate increases which are proposed. It is, he adds, inevitable in a fair value state that the return on the equity can be computed as being high in terms of percentages of return on book value, and if such return is computed after taking account in the operating revenues of only the historic cost of debt and preferred stock. In some instances there have even been assertions by those opposing rate increases that the value of the property found as fair value, to the extent it exceeds original cost, likewise constitutes a kind of return to the equity and should be taken account of as such. Such a suggestion, Bane says, is made without regard to the fact, of course, that the property is never distributed to the equity holders or the fair value realized upon them except through the medium of return on rates based upon fair value.

With this background, it therefore seems clear that the supreme court of Illinois has enunciated an important principle and one of "great benefit to utilities in fair value states," Bane continues, by realistically concluding that any return to the equity is to be computed only after a fair value has been determined or computed for the equity.

IN another area, Bane says, the court further ruled in the water company's favor in approving an observation method of computing depreciation on reproduction cost, as against contentions that

a straight-line method ought to be used. The court rejected a suggestion that the observation method might not be reliable since much of a water company's property is located underground.

In this respect the court rendered a real service, the author believes. It reminded that the straight-line method of computing depreciation constitutes only an accounting technique for allocating the cost of fixed assets over the life of the assets and is not a measure of the actual depreciation taking place in the property.

In several areas the court ruled against the utility's contentions, Bane points out. It suggested that a 15 per cent allowance on reproduction cost for overheads might be too high. The problem here arose in part by reason of an expression of opinion by counsel for the commission that a 15 per cent allowance was higher than any other that he knew of. It later developed he was thinking of an allowance for overheads which did not include interest, the author explains, but the court concluded that the commission ought to take another look at the matter, since the case was being referred to the agency on other grounds.

An interesting observation in connection with overheads, he says, was that an unusually high percentage of overhead expenses cannot be justified in terms of generally rising costs because any such high level of costs is already reflected in the basic reproduction cost of which the overheads constitute a percentage.

IN the area of working capital, the court decided that tax accruals ought to be offset against capital working requirements even to the extent of the materials and supplies component of working capital. Whatever may be the views as to the propriety of offsetting tax ac-

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cruals against cash working capital requirements, Bane states, it would seem erroneous to state that such accruals ought to be offset against materials and supplies.

Payments of tax obligations must, of course, be made in cash and not in materials and supplies, and, accordingly, any tax accrual funds which may have been invested in materials and supplies would have to be liquidated in anticipation of the tax payment dates. This would seem to mean, he says, that for all practical purposes tax accruals are not really available to take care of the materials and supplies requirement of a public utility.

IN a few other respects, the article continues, the court showed a "disappointing willingness to accept bare allegations of the interveners" that the company ought to realize increased income from improved meter maintenance and changes of a limited number of customers from flat rates to metered rates. The court required the commission to consider these matters on remand, though they seem "too trifling to justify this action," Bane states.

Furthermore, he says, these would seem to be areas in which the commission's judgment ought to be respected, without interference by a reviewing court. To the extent that a reviewing court attempts to determine whether a utility ought to realize additional revenues when it changes flat rate customers to meters, or attempts to decide what ought to be the result of a full-scale meter maintenance program, the court would seem to be entering into areas beyond its competence; areas where a regulatory body is expert if anyone is, Bane believes.

One relatively important matter of principle decided by the court goes to

the very basis of rate making, says the author. In arriving at its conclusion as to the fair value of the company's property, the commission had given relatively less weight to reproduction cost than it gave to original cost; the weighting was approximately 20 per cent for the former and 80 per cent for the latter.

THE commission's counsel then argued to the court that it ought not to be too concerned even if there were mistakes of fact or of judgment in arriving at the conclusions as to what the reproduction cost depreciated of the company's property might be, since the fair value determination did not depend to any large extent upon reproduction cost. The commission's counsel also argued that the court therefore need not and ought not to inquire into the propriety of the specific findings that went to make up fair value, but should concentrate only upon the findings as to fair value itself. This view was rejected by the court, Bane points out.

The most disappointing aspect of the Alton Water Company case is the amount of time that has been and will be consumed before there is any finality in the water company's rate situation, says Bane. Upon the remand, the commission entered a supplemental order establishing rates which it had previously approved and which had been the subject of the appeal. These latter rates are themselves, however, he explains, being made the subject of an appeal and hence three and a half years after the original filing, there is still no finality to the commission's order.

THERE likewise remains in litigation and unresolved the extent, if any, to which the company is required to make a refund to its customers on account of

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the increased rates charged pending appeal to the Illinois supreme court, after the lower reviewing court had found the rates as established by the commission to be unlawful.

Certain procedural revisions ought to be worked out, the author claims, so that a situation of this kind cannot be allowed to develop. The problem is particularly

acute in the case of a small utility, such as a water company, which may find some satisfaction in seeing important questions of public utility law resolved in favor of the utility industry, but is nevertheless not in a financial position to withstand long periods of uncertainty before determination of the propriety of its rate increase proposals.

Notes on Recent Publications

THE American Gas Association has recently distributed three 1961 publications dealing with the gas industry. The first of these, *Gas Facts*, presents comprehensive information on all phases of gas industry operations during 1960 and earlier years. Included are tabular material on energy reserves, natural gas production, exploratory and developmental drilling, transmission and distribution, underground storage facilities, customers, sales and revenues, appliance shipments, new security issues, financial results, construction expenditures, employees and payroll, the cost of gas and other competitive forms of energy, and a review of the Canadian gas industry.

The *Gas Data Book* is a condensed pocket-size version of *Gas Facts* presenting the most pertinent and important statistics of the industry for ready reference by company employees and for use as public relations material.

The third publication of this group is *Historical Statistics of the Gas Industry*. This is a compilation of all available statistical information for all years up to and including 1959. It brings together in one place complete historical statistics and obviates the need for reference to numerous past editions of *Gas Facts*. Supplements to this volume will be distributed annually to all purchasers to keep their volumes up to date. To facilitate their insertion the volume will be offered in a post binder. This particular publication

was to become available by the end of September.

GAS FACTS. Available from the American Gas Association, 420 Lexington avenue, New York 17, New York. Price \$3 per copy for the first five copies, \$1.50 for all additional copies.

GAS DATA BOOK. Available from the American Gas Association. Price, 50 cents for the first copy, 25 cents for all additional copies.

HISTORICAL STATISTICS OF THE GAS INDUSTRY. Available from the American Gas Association, 500 pp. Price, \$10 per copy, including post binder for future supplements.

NUCLEAR REACTORS. The Atomic Energy Commission has published a booklet, entitled "Nuclear Reactors Built, Being Built, or Planned," which contains tables listing civilian reactors, military reactors, production reactors, reactors for export, and critical assembly facilities in the United States. This compilation of reactor projects is published semiannually and the present issue contains figures as of June 30, 1961.

NUCLEAR REACTORS, BEING BUILT, OR PLANNED IN THE UNITED STATES, TID-8200 (4th Rev.). Available without charge from the Division of Technical Information Extension, United States Atomic Energy Commission, P. O. Box 62, Oak Ridge, Tennessee, 27 pp.



The March of Events

Alaska

Council Favors Telephone Sale

MEMBERS of the Anchorage city council, by a vote of 7 to 1, went on record recently as favoring the sale of the municipally owned telephone system if certain requirements are met. Specific requirements for such a sale and the price were scheduled for subsequent consideration by the council.

The council's stand was taken following earlier referendum rejection by the voters of a proposed \$4 million revenue bond issue for telephone system improvements. Councilman Harry Pursell said he was in favor of selling the system if cer-

tain objectives were obtained. "I firmly believe," he said, "that if private industry can furnish the services, the city government should bow out."

Councilman William Besser, who cast the lone dissenting vote, said that "just because the voters were against the bond issue doesn't mean they want to sell the system." He said the voters were indicating they wanted to reduce expenditures.

City Manager Chet Hostetler warned that the utility, if privately owned, "will come under the state public utilities commission. The council is going to lose the right to regulate telephone rates. It would have no jurisdiction."

Connecticut

Pipeline Rules Opposed

APROPOSED Connecticut regulation to require all future high-pressure pipelines to be built according to the most stringent standards unless special permission is obtained drew objections from two gas transmission companies, Tennessee Gas Transmission and Algonquin Gas Transmission.

The proposed regulation, part of a new set of standards promulgated by the state

public utilities commission, calls for "Type D" construction unless the companies apply for permission to use one of three other types of construction. Type D construction, which the companies said would be "considerably more costly," requires that the thickness of the pipe wall be greater than in other construction for maximum safety. Under the American Standard Code, this type of construction is meant to be used only in areas that have

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many multistoried buildings and a large number of underground utilities, the companies said.

The commission has indicated that it

would readily grant permission to use one of the other types of construction if a company showed that its pipeline would not pass through such an area.

Montana

Reopening of Gas Rate Case Sought

REOPENING of a state hearing into a request by Montana Power Company for higher natural gas rates was asked by a group of consumers. Montana Power seeks a rate increase of \$3,699,000 a year from nonindustrial users of natural gas.

The request for reopening the hearing was based on two contentions. One was an allegation that the company overstated its rate base by \$10 million on the Canadian side. The other referred to an unofficial session of Montana Power officials and expert witnesses with two members of the state public service commission in the absence of protestants, who thus were unable to cross-examine witnesses.

The company's request also calls for an

escalator feature, which provides for automatic increases geared to any increase in certain costs to 1978.

The petition for rehearing was filed by two residents of Great Falls and by counsel for the Montana Consumer Association. The Great Falls Gas Company, a wholesale buyer from Montana Power, is another major protestant, and has contended that the proposed charges are "unreasonable and unjustly discriminatory."

The consumers' petition contends that Montana Power is requesting from Montana gas users a rate of return on \$7 million in Canadian gas leases "which are not used nor useful in its gas operations." The consumers also assert that the company has included in its rate base \$3 million in interest as part of the purchase price of certain Canadian properties.

New York

Authority's Inquiry Rights Upheld

ACCORDING to State Supreme Court Justice George M. Carney, the New York State Power Authority has the right to investigate possible fraud or collusion in electrical equipment bids. In a decision given in New York city, it was brought out for the first time that the state authority had been conducting such an inquiry since last May. The ruling specifically upheld the authority's right to subpoena two employees of the Westinghouse Electric Corporation.

The authority had contracted to pur-

chase more than \$40 million worth of generators for its Niagara and St. Lawrence power projects from Westinghouse, General Electric Company, and Allis-Chalmers Manufacturing Company.

In the New York State Power Authority investigation, both General Electric and Allis-Chalmers willingly provided records and witnesses. However, Westinghouse refused, contending that the authority lacked statutory power to hold such hearings.

New York state went to court on November 1st in an effort to obtain triple damages from six large manufacturers

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of electrical equipment. Two actions were begun in Manhattan federal court by Attorney General Louis J. Lefkowitz. The amount of damages sought had not been determined. An assistant attorney general explained that it could be fixed

only after accountants compared prices paid with the probable open market prices during the four years of the alleged conspiracy. The figure would then be tripled, as permitted by the antitrust statutes.

Oklahoma

Gas Rate Increase Asked

OKLAHOMA's corporation commission recently was asked to approve a \$341,645 rate increase for the Gas Service Company, which serves 24,000 customers in 14 cities in the northeastern part of the state.

The company said \$202,168 of the requested increase would go for an increase in wholesale prices paid by the company.

It said increases in taxes and other costs would leave the company an increase of only \$61,500 in operating income. Of the total increase, \$290,023 would come from residential rates, which would be raised from \$1.20 to \$1.25 for the first 1,000 cubic feet of gas.

The company said present rates do not provide an adequate and compensatory return on its property.

Pennsylvania

Gas Rate Case Continued

THE state public utility commission has frozen existing rates of Peoples Natural Gas Company, Pittsburgh, pending a final order on the company's proposal to raise charges of some 261,300 customers in the western part of the state an estimated \$3,245,000 a year. A nine-month suspension ended on November 1st. The commission prescribed the temporary rates until it could reach a decision after further hearings.

The increase is being protested among others by the city of Pittsburgh, the boroughs of Aliquippa and Tyrone, and the Puritan Sportwear Corporation, Altoona. The proposed boost, originally filed to become effective last February 1st, is designed to meet increased operating costs, other than higher wholesale gas prices, and to help overcome an earnings deficiency, according to the company.

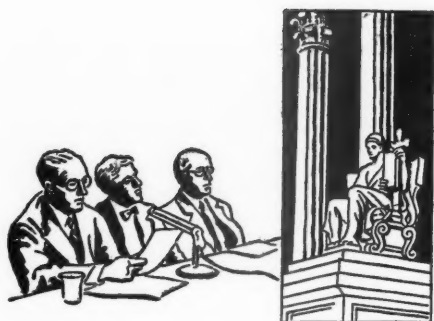
The commission also has under suspension to December 11th a proposal by the

company to read meters every two months instead of every month.

Gas Rates Reduced

MANUFACTURERS LIGHT & HEAT COMPANY has announced in Pittsburgh the third in a series of rate reductions stemming from a cut in the cost of wholesale natural gas. The most recent cut was a refund of \$520,000 to be paid back to the company's 256,000 customers over a 12-month period starting November 2nd. The refund amounts to a \$1.40 saving for a typical heating customer and 33 cents for a typical nonheating customer over the year.

The company will make still another cut some time in the future to complete refund and rate reductions which so far have totaled more than \$2,830,000 since the Pennsylvania commission approved the reductions last March. Total savings for a typical heating customer will be about \$7.65 over a one-year period.



Progress of Regulation

Trends and Topics

Competition by Public Utility Companies with Nonutility Business

MANY cases relate to competition between public utility companies or carriers, but a few cases deal with the question of competition by a public utility company with a nonutility business, mostly gas competition with other fuels. A recent decision by the Arkansas commission involves pay television competition with motion picture theaters. Representatives of moving picture theater owners raised objections to a telephone company supplying coaxial cable distribution service. Their arguments added up to one contention, that pay television would disrupt other segments of the entertainment business. Any new invention is likely to lead to economic change, said the commission, but it could not deny the people of Arkansas the benefits of a new entertainment media merely because other segments of the industry might be inconvenienced thereby (39 PUR3d 496).

Federal Power Commission Rules on Gas Competition

The Federal Power Commission has taken the position that authority to construct natural gas facilities should be granted where a definite need for the service is shown, notwithstanding objections by intervening coal, labor, and railroad interests alleging detriment to producers and transporters (6 PUR3d 403; 30 PUR3d 104). The economic impact upon the coal industry, the railroads, and those employed in these industries, constitutes only one of the factors to be considered when passing upon an application for authority to construct natural gas pipelines (64 PUR NS 129; 65 PUR NS 184; 67 PUR NS 427).

The commission in one case granted a certificate for a natural gas pipeline project, notwithstanding an objection by competing fuel interests that it should be denied because of an appreciable daily capacity in excess of the company's contract daily obligation for the next winter season, where the excess capacity was found to be reasonable in view of past experience (30 PUR3d 208). The commission in another case said that there is no mandatory obligation to investigate the question of displacement of coal by natural

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gas, particularly where intervening coal interests offer no evidence as to what effect the granting of the certificate would have on the coal interests (35 PUR3d 420).

Views of State Commissions

The Colorado commission declared that it had no obligation to protect the coal industry by refusing to authorize construction of a pipeline to bring natural gas to a community whose people at a municipal election had indicated an overwhelming desire to have natural gas instead of coal for their fuel (87 PUR NS 89).

The Tennessee commission held that anticipated private losses of the coal industry and the railroad industry did not constitute a valid ground for denying authority to construct and operate a pipeline in order to introduce natural gas into the state. The commission said it could not afford to mold its policies and decisions in such a way as to afford special protection to vested interests at the expense of technological progress and the public good (40 PUR NS 129).

The Utah commission authorized natural gas companies to do business notwithstanding displacement of coal consumption, a fundamental industry of the state (PUR1929B 127). In another case, notwithstanding a convincing demonstration of the fact that it was both feasible and practicable to produce a solid smokeless fuel for domestic and commercial use from the enormous bituminous coal resources of the state, the commission authorized a natural gas utility to serve several cities where there was no positive assurance that any plant for the conversion of such coal for fuel, gas, oil, and other products would be constructed in the near future (PUR1931C 136).

The Wisconsin commission authorized construction of a pipeline to obtain natural gas to be substituted by a local gas utility for manufactured gas where this would provide a cheaper and better fuel for customers, although there might be some temporary disruption of the business and employment of those engaged in the transportation, distribution, or handling of other fuels (60 PUR NS 284).

A Pennsylvania court said the state could not lawfully discriminate against a hydroelectric plant, built with its sanction with a large investment, which asked for authority to compete with fuel-generated electricity, merely to aid a paramount industry of the state—coal mining—where the broader public interest would be better served by the authorization of such competition (3 PUR NS 152).

The West Virginia commission approved hydroelectric projects, notwithstanding objections by coal mining interests, in view of the necessity and demand of public, industry, and commerce for progress in the development of electrical service (PUR1929A 477; PUR1930D 225).

Review of Current Cases

FPC Asserts Jurisdiction over Intrastate Gas Commingled with Interstate Gas

THE Federal Power Commission held that natural gas destined for intrastate use but commingled with interstate gas is subject to its jurisdiction even when contracts specifically limit the gas to use inside one state. In so holding, the commission modified its examiner's decision to the effect that the sale and delivery of natural gas by Houston Pipe Line Company to El Paso Natural Gas Company, pursuant to a restricted-use contract for the latter's fuel consumption in Texas, was intrastate and, therefore, not subject to commission jurisdiction.

This proceeding concerned the question whether the commission would have jurisdiction, under the Natural Gas Act, over proposed sales of natural gas by Lo-Vaca Gathering Company and by Houston Pipe Line Company to El Paso Natural Gas Company. Lo-Vaca's contract provided that all the gas to be purchased by El Paso would be used solely as fuel in El Paso's plants and facilities located outside the state of Texas. It was understood, however, that the gas would be commingled with other gas being transported in El Paso's pipeline system.

Houston's contract provided that the gas to be purchased by El Paso would be used solely as fuel in the operation of El Paso's plants and facilities within the state of Texas. Since it was generally agreed that some part of the gas would be physically transported in interstate commerce for resale by El Paso for ultimate consumption in California, any exemption for these sales would have to be based upon the restricted-use contracts.

Effect of Contract on Interstate Status

It is well settled, according to the

commission, that the business of selling and transporting gas, electric energy, and other goods from one state to another constitutes interstate commerce. The commission also noted that sales of gas by interstate pipeline systems are sales in interstate commerce where the gas sold has been produced in another state even when mixed with gas produced in the same state. Citing numerous court decisions involving interstate sales of gas, the commission said that the principles expressed in these cases are not changed by the contractual provisions with respect to the disposition of the gas involved in this case.

El Paso is engaged in an enterprise extending from Texas to California and from Mexico to Canada. The record showed that the gas produced or purchased in Texas goes to a number of possible destinations. Some is consumed in Texas, but most of it is transported out of the state in El Paso's pipeline system. The commission held that the limited-use contracts do not alter these physical facts.

The commission said that the touchstone of the question whether the sale of gas is for resale in interstate commerce is what is done with the gas, not what the parties might say about the transaction, verbally or in writing.

Effect on Rate Regulation

The commission believed that if it reached a different conclusion its regulation of gas rates would be handicapped. It would be possible, it said, as in this case, for a pipeline to offer to purchase gas at a higher price than would otherwise be allowed in the area. The company could claim that it would use this

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gas in its compressors or would deliver it to its intrastate customers even though the gas would actually be received into its general system transportation facilities and used for every system purpose, the commission said.

Furthermore, said the commission, it would be possible for a pipeline company to discriminate among producers by giving certain ones the privilege of selling them the gas which, by agreement, would be deemed to be segregated from the interstate stream and to be resold and consumed in the state of production or used in compressor stations. This might increase the cost to interstate customers and at the same time put them at a competitive disadvantage in obtaining additional gas supplies.

Dissenting Opinion

Commissioner O'Connor dissented on

the ground that the decision of the majority would effectively preclude the use of interstate pipeline company facilities for intrastate transmission of natural gas within the producer states for the use of the consumers and industries in those states without the producers of such gas being subject to the commission's jurisdiction. This, he believed, constituted an unnecessarily harsh imposition on the consumers in the producing states. In O'Connor's opinion, the advantages to interstate pipeline companies of the flexibility in disposing of surplus supplies of gas in intrastate commerce, as well as the potential usefulness of these lines in providing intrastate transportation revenues, far outweigh the possibilities of additional costs to interstate consumers. *Re Lo-Vaca Gathering Co. et al. Opinion No. 348, Docket Nos. CI60-693, CP61-177, October 23, 1961.*



Concession to Related Companies Is Discriminatory

THE Wisconsin commission held that it was discriminatory for a small telephone company not to collect for switching service rendered to subscribers of several companies which controlled it, because the practice placed the burden of operators' wages and maintenance of the switchboard on the company's captive subscribers. The commission directed that this discriminatory practice cease.

In granting the company a rate increase which will provide additional operating income of about \$2,000, the commission took into account somewhat more than \$1,000 of uncollected switching charges.

A return of 6.5 per cent, however, was allowed on a net book value rate base. *Re Soldiers Grove Teleph. Exchange, 2-U-5568, August 28, 1961.*



Rate Discrimination Resulting from Local Taxes and Minimum Charges Ruled on, Along with Attrition Allowance

VARYING levels of municipal taxes levied against Arkansas Louisiana Gas Company, as well as inadequate minimum monthly charges of the company, have resulted in unlawful discrimination,

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the Arkansas commission ruled. To correct these conditions, it authorized the company to charge back to local customers the excess of local taxes over a reasonable levy and approved an increase in

PROGRESS OF REGULATION

minimum charges. Although the latter remedy will increase the company's revenues, it will not produce a return in excess of a previously established reasonable rate of return. It was noted that the company's rates are among the lowest for residential service in the United States.

Municipal Taxes

The commission made it clear that it claims no control over municipal taxation but asserted jurisdiction over rates and terms for utility service. The commission has authority to eliminate discrimination among customers resulting from nonuniform levying of taxes by various municipalities.

Of the municipalities on the company's integrated system, some levied no taxes, while others taxed at various levels up to a high of \$2.34 per meter. On the company's nonintegrated system, again some municipalities imposed no tax, though other taxes ranged from zero to \$4.28 per meter. Taxes ranged up to \$1.12 per meter in the company's special service areas. These varying taxes have been paid by the company out of revenues derived from rates applicable to all of its customers. The effect of this situation is, of course, that customers in nontaxing or low-taxing areas have been paying taxes levied by other municipalities—a discriminatory result.

It costs the company about \$2 more per meter to serve customers in rural areas than in municipal areas. Payment of taxes to municipalities in the amount of \$2 per meter, therefore, would not result in discrimination against customers in other areas. In the company's special service areas and in areas where utility facilities used by the company have been financed by "bond issue towns," a tax of one dollar per meter was found not

to be discriminatory. Municipal taxes in excess of these amounts were authorized to be charged back to the customers in the taxing municipalities, along with the expense of billing, collecting, and remitting.

Minimum Charges Increased

The company presented evidence of discrimination and inadequacy with respect to its minimum charges to residential, commercial, and small industrial customers. A full-scale rate hearing was not requested, but since an increase in minimum charges would produce additional revenues, the municipalities concerned raised the question of excessive rate of return. The commission examined the company's earnings, expenses, and rate of return for 1960. It adopted the last authorized rate of return of 6.34 per cent, which has been approved by the Arkansas supreme court. No request was made in this case to re-evaluate this rate of return.

The company's monthly minimum base charge in its integrated system cities has been \$1.10 including one Mcf of gas. Minimum base charges in other cities served by the company have varied from \$1.50 to \$2.50 per month. The average monthly distribution expense per average customer in the integrated system cities amounted to \$1.93 in 1960, at which time the monthly base charge represented about 56 per cent of the average monthly distribution expense per average customer. This expense does not include the allowed one Mcf of gas, transmission expense, depreciation expense on plant, return on plant, or any income taxes. Moreover, costs have risen sharply in recent years. The commission noted that the companies serving other southern and southwestern cities have monthly base charges which cover from 83 per

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cent to 116 per cent of the monthly fixed distribution cost per customer. Such charges recognize the necessity for the monthly base charge to approximate the fixed distribution cost per customer.

It appeared to the commission that Arkansas Louisiana's minimum charge of \$1.17 for its integrated system cities was discriminatory, both from the standpoint of the monthly minimum charges in effect in other cities served by the company and from the standpoint of fixed distribution costs. The company's proposal of a minimum of \$1.80 (\$1.87 with adjustments) in the integrated system cities was approved as just and reasonable. Since a minimum of \$1.96 has been charged in the nonintegrated system municipalities, a reduction to \$1.87 was ordered.

Conservative Rate Base Approach

The commission indicated that it would adhere to its conservative original cost less depreciation rate base approach. It adopted a 50-50 method of allocation of transmission facilities not directly assigned. An end-of-period rate base was used, although the commission considered the argument that average figures are more closely related to the revenues and expenses of the test period. The fixing of rates for the future and the problem of attrition not only commend the use of a year-end rate base, said the commission, but require an additional allowance in the rate base.

Working Capital and Taxes

Nor would the commission reduce working capital requirements because of available customer deposits and income tax accruals. When a customer pays his bill, such payment covers a portion of the company's taxes as well as other items of cost of service, and the payment be-

longs to the company and may be used by it for any lawful purpose. Customer deposits are merely debts of the company. The mere fact that such debts and taxes are to be paid out of revenues, all of which are obtained from customers for services rendered, does not make that money any more available for one purpose than another, it was pointed out. And the mere fact that moneys for the payment of such debts, expenses, and taxes are so collected does not obviate the necessity of maintaining a cash balance to pay them and of maintaining an adequate cash balance for operation after they have been paid. The proposed allowance for working capital was approved.

Attrition Allowance Computed

The commission noted that many regulatory agencies, because of rising costs, are taking attrition into account in determining the rate base. Increasing costs cause a rate base to become inadequate as replacements are made, with a consequent wasting away of the allowable return. Following a formula developed by the Kentucky commission (21 PUR3d 394), the Arkansas commission computed an allowance for attrition. The average increase in investment per customer from December 31, 1959, to December 31, 1960, was multiplied by the average number of customers at the end of 1960. The product was considered a reasonable addition to the distribution rate base for attrition.

Specific Revenues and Expenses

Adjustments were made to reflect normal weather conditions. About half of the merchandising and jobbing loss claimed by the company was allowed as replacement and repair expense. Proper replacement and repair, the commission

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indicated, is essential to public safety and constitutes a proper utility expense in this case. Reasonable expenditures for sales promotion and advertising, incurred by the company to maintain its load against the competition of other energy sources, were allowed. Expenses in connection with the financing of gas-burning appliances were similarly allowed. Also, adjustments were made for known changes such as wage and tax increases.

Gas Supply Cost Approved

An issue was raised as to whether the company was buying in the lowest and most advantageous market. It is obvious, said the commission, that the cheapest gas may not be the most advantageous gas.

A depleted well in a low-pressure field may be a cheap source of supply for the immediate future, but the company has a duty to secure adequate supplies for future needs as well as immediate requirements, even though the cost of gas is thereby increased. The commission found that the company has proceeded so as to make gas available to its Arkansas distribution customers, both present and

future, on the cheapest and most advantageous basis.

Escalator Clause Favored

Although an objection to an escalator clause filed by the company and put into effect in 1958 was untimely, the commission discussed it on the merits. The clause permits a rate adjustment each year by the amount that the weighted average cost per Mcf of gas exceeds or is less than the weighted average cost for the prior 12-month period. The company has filed and obtained increases under this clause in 1958, 1959, and 1960.

It was contended that the costs passed on to customers were excessive and should be refunded. The commission pointed out that it checks filings made pursuant to the escalator clause and all relevant data, and then either approves or disapproves them. The use of an escalator clause, it was declared, is an effective method of regulation and is fair to all concerned. A utility should always have rates which will produce the allowable rate of return. *Re Arkansas Louisiana Gas Co. Docket No. U-1311, September 29, 1961.*



“Very High” Return Allowance on Transit Investment Reflects “Higher Risk Element”

THE Hawaiian commission approved new transit fares of 25 cents cash, five tickets for one dollar, and a straight 5-cent zone fare. The previous cash fare was 20 cents. The new rates will afford sufficient additional revenues to result in a rate of return of 18.46 per cent on a net investment rate base of \$2,530,500 based on book costs, or 8.49 per cent on a “present-day value” rate base of \$5.5 million claimed by the company. The operating ratio expected to result from the

new rates is 91.6 per cent. The earnings on common equity will reach 13.5 per cent.

The commission considered the expected earnings commensurate with returns on investments in other enterprises of corresponding risk and, as such, “generously adequate” to permit the company to provide a high standard of service, meet all costs of operation, and continue successful operation of the business. While 13.5 per cent return on equity was

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recognized as relatively high for a capital structure made up of 88 per cent equity, the commission noted that it reflects the "higher risk element" of the transit operator. It was also recognized that the operating ratio of 91.6 per cent is lower than the company has realized in past operations. Likewise, 18.46 per cent return on net investment, "while viewed as very high," was regarded as justified in view of present conditions in the transit business.

Present Market Value Rejected

A present market value compilation of transit properties, put together on a piecemeal basis, and offered as a base for the return allowance was rejected by the commission as "speculative, elusive, and nonpractical." It would provide, said the commission, if carried to the level sought, "a large unearned increment in nondollars of investment" in property dedicated to the public and clothed with a public interest.

The measure of value for the establishment of rates was said to be better represented by net dollars of investment.

Lost Assets Considered

The commission granted no expense allowance for the amortization of streetcar and rail properties which occurred in 1942. At that time the company received authority to write off its loss due to premature obsolescence. It cannot now claim further recovery of such assets. However, recovery of \$128,000 in assets over a ten-year period in the conversion from trolley to motorbus, not previously concluded, was granted.

Advertising and Charter Revenues

The commission ruled that charter and advertising revenues are a part of utility income and they were treated as such for rate-making purposes. The revenues from space on a bus, whether it be a seat or advertising space, said the commission, are one of the end results of the transit operation, performed in large measure by utility personnel.

Outside Investment to Be Recovered

During the test year, the company transferred \$200,000 in cash to its wholly owned subsidiary as a permanent investment. The approval of the commission was not requested because the company considered the funds a part of earned surplus beyond the regulatory powers of the commission. The crucial question was whether such funds were in excess of the cash requirements of the company and, therefore, not used or useful in the transit business.

There was no earmarking of cash by source and intended use. However, in looking at advance transit collections for service, tax accruals under accelerated depreciation, the lag in the payment of expenses, and depreciation accruals (for which no depreciation reserve has been maintained), all of which items went into the cash balance as of the time of the unapproved transfer, the commission concluded that the transfer was not properly made from earned surplus without the consent of the commission. It therefore ordered the company to recover the \$200,000. *Re Honolulu Rapid Transit Co. Ltd. Docket No. 1405, Decision & Order No. 1061, August 16, 1961.*



Employees' Stock Option Program Approved

THE Colorado commission authorized Western Power & Gas Company to

issue up to 188,554 shares of its common stock, par value \$5, in connection with an

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employees' stock option program. Several individual plans are involved. Some are for officers and key employees, while other plans provide for all employees.

Under one of the former plans, a stock option committee is authorized to designate the grantees of options, fix the number of shares optioned to any grantees, and fix the price of such shares, though at not less than 95 per cent of the fair market value at the date of the grant of the option. Such option may not be exercised for two years, and then only to the extent of 20 per cent in the third year and each subsequent year so that in the seventh year it becomes fully exercisable. Options are not assignable and they terminate upon termination of employment, except that upon retirement or death an option may be exercised within three months by the optionee or by a legatee or his personal representatives. Options may not be exercised more than ten years from the date of the grant.

The principal feature of the program for all employees is that a limited amount

of common stock may be purchased at \$3 below the average market price after the accumulation of sufficient monthly payroll deductions at 75 cents per share per month. This is subject to certain maximum and minimum prices and other limiting provisions.

The company represented that the program will help to retain and encourage competent management personnel and will assist in recruiting capable new employees. It was urged that employee participation in the program will facilitate good employee relations and thereby tend to foster efficient service to the public. Funds from shares sold upon the exercise of options will be used for construction and extension of facilities.

The commission found that the proposed stock option program is not inconsistent with the public interest and that such issue and sale of stock are permitted by law. The program was therefore approved. *Re Western Power & Gas Co. Application No. 18648, Decision No. 57055, August 24, 1961.*



Safety, Service, and Convenience Considered in Grade Crossing Case

THE Nevada commission denied Southern Pacific Company authority to close a grade crossing at Tenth street in Carlin, Nevada, and to open a new grade crossing at Fourth street. The application was protested by the town of Carlin and by interested individuals.

The preponderance of testimony at the hearing centered around economics. The commission indicated that it does not have authority to look beyond the safety features of the traveling public which might be affected by the closing of the one crossing and the opening of the other.

The only criterion required of the

commission with respect to the elimination of a grade crossing, it was pointed out, is the safety of the traveling public.

However, the commission then declared that it will not approve the closing of a grade crossing over an extensively traveled street of a city which protests such closing, as in this proceeding, unless the evidence is convincing that the service, accommodation, and convenience to the public will not be impaired.

It was noted that the company did not demonstrate that its proposal would provide any additional safeguards to the public at the new proposed crossing site. Upon findings that no hazardous condi-

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tions existed for the traveling public at the Tenth street crossing and that the traveling public would not be afforded any greater safety by the closing of the

one crossing and the opening of the other, the application was denied. *Re Southern P. Co. Case No. 1293, August 31, 1961, September 5, 1961.*



Limited Mobile Telephone Service Competition Encouraged

THE California commission, in approving General Telephone's mobile service tariff, concurred in the FCC's view that a policy of fostering limited competition in this field has a beneficial effect on the development of the communications art and industry. The pursuance of such a policy, said the commission, will go far toward assuring optimum utilization in California of the respective portions of the radio frequency spectrum allocated by the FCC to telephone utilities as a class and to miscellaneous common carriers as a class.

No Necessity for Certificate

The complaint proceeding had been instituted by Coast Mobile Phone Service, a radiotelephone utility of the common carrier class. Disagreeing with the complainant's contention that a new certificate was required before General could provide mobile service, the commission said that the franchises and certificates under which General operates place no limitation as to the mode or manner in which the provision of telephone service is accomplished. Serving subscribers in vehicles is a normal extension of plant and telephone service. It is immaterial that the proposed extension is to be accomplished by a radio link rather than a wire link.

Comparability of Service

Coast's tariffs permitted it to offer dispatching service only. They did not provide for the offering of either general

service or signaling service, both of which General proposed to provide as well as dispatching service. Further, Coast's tariffs stated that there were no concurring, connecting, or other participating carriers involved in the rendering of its service offerings.

Notwithstanding, Coast asserted that it did render general service and did so by inductively coupling into General's Santa Barbara system at the telephone subscriber facilities located at the control point of its base station. The record revealed, though, that Coast had no authorization for this interconnection, either from General or any other telephone utility, or from the commission or any other regulatory authority. The inability to legally provide other services besides dispatching seriously detracted from the merits of Coast's allegations that the public interest would not be served if General were also to offer mobile service in the area.

Market Barely Saturated

The commission commented that Coast either had not exploited or had been unable to meet the needs of its potential market area. Coast had been in operation since 1957, and its business had leveled off at 25 mobile stations, or at one-third of its licensed capacity of 75 stations. Underlying the demonstrated inability to grow, the commission thought, might be the rate treatment afforded customers. All subscribers purchased their own mobile equipment and had Coast provide main-

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tenance thereon. Mobile development would be considerably accelerated by the offering of the vehicular station equipment on a monthly rental basis as General proposed to do.

It was apparent to the commission that if the demand indicated by a commercial survey were to materialize, and the commission believed such demand would ultimately be surpassed, then the limited frequencies available to General as a telephone utility might become congested, causing a deterioration of mobile service and a backlog of held orders in the manner already experienced by another util-

ity. For this and other reasons, the commission was of the opinion that the public interest would be best served by mobile general service being rendered in Santa Barbara by both a general land-line company and a radiotelephone company of the miscellaneous common carrier class. Such an arrangement would assure the greatest possible frequency availability, thus permitting the maximum number of Santa Barbara residents to obtain such service. *Malis, d/b/a Coast Mobilphone Service v General Teleph. Co. of California, Decision No. 62582, Case No. 7059, September 19, 1961.*



Residential Wiring Plan Not Unduly Discriminatory

THE Georgia commission has held that the Georgia Power Company's "residential wiring plan" does not, in effect, allow certain customers of the company to benefit from lower overall electric service cost to the detriment or expense of other classes of customers. The commission also was of the opinion that, in accordance with the intent of the plan, the company could legally retain title to the wiring equipment for which it claimed title and recorded depreciation on its books.

Petitioners' Case

The petitioners alleged that the company had, through the plan, made payments directly to property owners or builders. The discrimination effect of the action was alleged to be in the fact that existing customers who had already provided for sufficient electrical capacity prior to the plan at their own expense could not recover any of their investment from the company. In addition, those customers who did not, and especially those who could not, participate were forced to bear the burden of this

payment through proportionately high electric service rates, if not at the present moment, at some time in the future. In essence, petitioners contended, the payment would amount to an unrecoverable rebate by the company to customers who could and did participate in the plan, and such rebate would ultimately have to be paid by other customers.

Another question of extreme importance, in the eyes of petitioners, concerned legal ownership or title to the property. Inasmuch as the facilities involved were attached to real property and the company had filed no notice in appropriate county records, it was contended that such facilities, when attached, became part and parcel of the real property. By the nature of the installation, the wiring equipment could not be removed without damage to the real property, which would, in effect, cause it to cease to be personalty. Therefore, the petitioners said, the company was earning a return on property to which it did not hold title.

The company attempted to support the plan by comparing the provisions to the

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"free" main and service line extension regulations of certain natural gas distribution companies. The two policies were the same for all practical purposes. For example, where the gas company might install a certain number of feet of main free of cost for a customer who used a gas range, the company would pay a portion of a customer's cost for installation of sufficient electrical capacity to utilize an electric range. While such a comparison might be valid to a point, the commission answered, it had to be remembered that all gas company owned facilities were located on the service side of the gas meter while, under the plan, the company facilities extended for some distance on the house side of the electric meter. The company had shown that when it purchased the service entrance facilities, a unity of title never existed between the facilities and the realty improved. The payment as provided for in the plan was designed to be made directly to the contractor. In addition, agreement was obtained from the realty owner to the effect that title to facilities installed would remain with the company and that notice of same was accomplished by affixing an appropriately worded tag to the service entrance panel. The company took the position that its installations constituted an attachment to facilitate electric service and not an attachment designed to become a permanent part of the realty. It compared the attachment with meter sockets, meters, and telephone equipment wherein title remained in the utility.

Commission Discussion

Any new action or step taken in the utility business, pointed out the commission, cannot be expected to be of immediate benefit to 100 per cent of the citizens. Each step forward must benefit the majority, but without unjust discrimination against the minority. It had to be accepted

that any new plan or act must begin at some definite point. This necessarily involves a cutoff date. While it was true that there were many customers who could have benefited directly from the plan immediately prior to its inception date, the fact remained that it was not available prior to that date. To attempt to make provision for them in the plan would of necessity involve some earlier cutoff date. Argument that participating customers gained lower overall electric service cost was not realistic, in the commission's opinion. If so, it would follow that each individual customer could claim he was being discriminated against and that the company invested more to serve his neighbor than to serve him. It is the responsibility of the company to establish the most economical investment that can be made. Such an amount could be fixed or graduated on a sliding scale according to anticipated revenues.

The plan, in theory, was designed to promote increased usage of electric energy by the participating customers and appeared reasonable as long as the investment and equipment to serve these customers did not exceed an amount upon which the company could reasonably be expected to receive a rate of return in keeping with that earned from other customers in allied classifications. The order provided that company expenditures, under the plan, should not exceed $3\frac{1}{2}$ times the anticipated increased revenue.

To insure that future interpretations of the plan would be in keeping with the intent thereof, the order directed company personnel to permanently affix a property tag to the service entrance panel, stating that all service entrance facilities up to and including the panel, or switch, but not including any circuit breakers, etc., were property of the company. *Re Georgia Power Co. File No. 19314, Docket No. 1614-U, August 29, 1961.*

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Tariff Limitation of Liability for Service Interruption Binds Telephone Subscriber

THE court of common pleas of Lancaster county, Pennsylvania, in passing upon objections to an answer filed by a telephone company in an action for damages, decided that a limitation of liability in a filed tariff is valid and binding. The company contended that the subscriber had executed an application for service and thereby entered into a contract under the terms and conditions of a filed tariff. One tariff provision limited liability for interruption of service. The subscriber contended that this limitation was void because it was contrary to public policy.

The telephone company, as a public utility, is subject to the provisions of the Public Utility Law and commission regulations. The law requires every public utility to file with the commission tariffs showing all rates established. The commission has adopted regulations which provide, in part, that the utility shall set forth all rules and regulations which apply generally to all classes of service covered by the tariff.

Tariff Provisions

The pertinent provisions of the filed tariff state that the company reserves the right to require applications for service to be made in writing and that upon acceptance of an application for service all applicable provisions of the tariffs lawfully on file become the "contract" between the company and the subscriber. It

further provides that in event interruptions, omissions, defects, errors, mistakes, or delays in transmission occur in the course of furnishing service, lines, and other facilities, the liability of the company for damages shall in no case exceed an amount equivalent to the proportionate charge to the subscriber for the period during which such interruption, omission, defect, error, mistake, or delay in transmission occurs.

Since the subscriber had made a written application for service and service was furnished, a contract relation, according to the court, was created between the parties and that contract was in effect at the time the service was interrupted. The court said that unless such a limitation of liability is unlawful or void by reason of being against public policy, a customer is bound by the terms of the contract.

Court or Commission Jurisdiction

A reasonable limitation of liability, as distinguished from an exemption of liability, was held to be valid and binding. The question of reasonableness of a tariff provision is one that has been placed exclusively in the commission by the legislature. The reasonableness of the limitation, said the court, was not before it, in view of the jurisdiction of the commission. *Kilbourne, t/a Kilbourne's T. V. v Denver & Ephrata Teleph. & Teleg. Co. No. 87, October 13, 1961.*

Other Recent Rulings

Bond Interest Rate. In a gas utility certificate proceeding, the New Mexico commission considered satisfactory a

feasibility study which involved, among other things, a proposed bond issue at an interest rate of 6½ per cent. *Re Raton*

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Nat. Gas Co. Case No. 592, August 31, 1961.

Amortization of Telephone Plant Loss. The Wisconsin commission allowed a small telephone company to amortize abandoned telephone plant, upon conversion to dial operation, over a period of ten years rather than five years as proposed. *Re Milltown Mut. Teleph. Co. 2-U-5578, September 8, 1961.*

Increased Rates Justified. The Missouri commission dismissed a complaint against a telephone company's proposed consolidation of two exchanges, the installation of rural dial service in the consolidated area, and revised higher tariffs which would require area residents to pay a toll charge on calls beyond the exchange area, upon a showing that the company would more effectively be able to meet interest commitments on money borrowed from the federal government. *Re Leewood Teleph. Co. Case No. 14,635, September 22, 1961.*

Group Rate Increase. The Florida commission authorized a trucking association to increase all less-than-truck-load and any quantity class and commodity rates of its members by approximately one per cent so as to reach the comparable prevailing interstate rate upon a showing that the present group operating ratio was 99.36 per cent. *Re Florida Intrastate Rate Bureau, Docket No. 6432-CCT, Order No. 5252, September 25, 1961.*

Refund of Overcharges. The Utah commission granted a railroad's request for permission to refund overcharges on certain carloads of lead concentrates upon a showing that the actual freight rate

legally published at the time the shipments moved was unreasonably high and that the subsequent reduced rate approved by the commission was reasonable and lawful for the service performed. *U. S. Smelting, Refining & Mining Co. v Denver & R. G. W. R. Co. Informal Docket No. 754, September 28, 1961.*

Insufficient Notice. The U. S. court of appeals held that public notice of a cutoff date which did not fairly advise prospective applicants of what was being cut off by the notice was insufficient to preclude the filing of an application with the Federal Communications Commission for consolidation for hearing with other mutually exclusive applications. *Ridge Radio Corp. v Federal Communications Commission, 292 F2d 770.*

No Antitrust Violation. The U. S. court of appeals held that the granting, by railroads, of an exclusive contract to handle baggage between terminals in a certain city to a new company, thus bypassing the established company which had been providing such service under a prior contract, did not constitute an illegal violation of the antitrust laws where both companies had competed for the contract. *Parmelee Transp. Co. v Keeshin et al. 292 F2d 794.*

Construction of Grandfather Rights. The U. S. district court held that construction of rights existing under grandfather authority must be sought by re-opening the proceedings wherein the authority was granted, since there can be no collateral attack on a permit in proceedings to restrain alleged violations thereof. *J. H. Nowinsky Trucking Co., Inc. v United States et al. 195 F Supp 748.*

Industrial Progress



15 Million Program Planned by New Jersey Companies

SEY Central Power & Light New Jersey Power & Light Companies expect to spend about \$175 million by 1970 for new electric generation and major transmission facilities to keep ahead of an ever-increasing demand for electricity by customers.

William H. McElwain, president of both companies, announced that more than 400 miles of new 230,000-volt transmission facilities are scheduled to become part of the companies' electric system during the next nine years.

He also said that by 1970 the companies expect to increase generating capacity to about 1,500,000 kilowatts from the 606,000 kilowatts now available from four generating stations.

McElwain said a new generation station capable of ultimately producing 1,500,000 kilowatts is planned for Lacey Township in Ocean County. Another 300,000 kilowatts of capacity will be available from the companies' Yards Creek pumped-storage hydro project in Warren County.

Construction of the Lacey Township station is due to begin in mid-1960's. The Yards Creek project is slated for operation in 1964. The companies also are planning to install several internal combustion-driven generators in the next several years which will provide for peak in customer demand.

The companies' construction program is based on forecasts of future customer increases and more electricity usage and is designed to insure the development of electric generation and transmission facilities stay ahead of this increase. For example, planning for major transmission lines begins at least five years, he said.

CP&L-NJP&L engineers say both companies' electrical load grows about 10 per cent a year which means it doubles every eight years. Mr. Mc-

Elwain predicted that by 1970 the average JCP&L-NJP&L residential customer will be using almost twice as much electricity as he did last year.

Florida P&L Wins Socrates Award For Advertising

THE Socrates Award has been presented to Florida Power and Light Company.

The honor, accepted by M. B. McDonald, company advertising vice-president, cites FP&L for "outstanding leadership for excellence in advertising."

Based on competition with 300 other major utilities throughout the United States and Canada, the award—presented on points accumulated on a monthly basis—is sponsored by Vincent Edwards Ad-Views Services of Waltham, Massachusetts, publishers and producers of Public Utilities Ad-Views magazine.

The advertising program for FP&L is implemented by Bishopric/Green/Fielden, Inc. and Tally Embry advertising agencies of Miami.

New Atlantic City Electric Station Designed to Be An Attractive Part of Surroundings

THE Atlantic City Electric Company has planned its new 144,000 kilowatt generating station at Beesley's Point, Cape May county, as a showcase example of a plant designed to be an attractive part of the surrounding area.

The facility will be named the B. L. England generating station in honor of the chairman of the board of directors of Atlantic City Electric Company.

Architectural design, featuring an exterior of painted aluminum panels for all major buildings, is the key to the pleasing appearance of the plant now under construction, according to E. R. Kilsby, superintendent of construction for the utility.

struction for the utility.

The use of Reynolds Metals Company "Colorweld 60" pre-enameled aluminum panels, which eliminate the need for on-site painting of enclosure walls, helped make the attractive design comparable in cost with other siding materials, Mr. Kilsby said.

Exterior of the building will be a soft blue, while the interior side of the panels will be tan. The pre-painted aluminum panels will be in V-beam configuration with a leather-grain embossed finish.

The Bechtel Corporation, San Francisco, is engineer and constructor. Eberle & White, Philadelphia, will apply the siding material.

Scheduled to go into service by the latter part of 1962, the new plant will be one of four stations serving the southern part of New Jersey.

New Anaconda Brochure Covers Hot-Spot 125C Cable

ANACONDA Wire and Cable Company has just issued a new technical brochure covering Hot-Spot 125C cables.

The new material offers handy information on how the cables should be used and includes quick selection tables to aid in size specification. Typical test results for Hot-Spot insulation are shown together with a listing of physical properties.

Best application for Anaconda Hot-Spot cables are in high-ambient temperature areas and in wet locations. Field tests showed them particularly adaptable for use around soaking pit cranes, annealing and melting furnaces and hot-rolling mills in steel mills. In power plants, the cable can be run in boiler areas and near steam pipes.

The publication is available by writing Anaconda Wire and Cable Company, Box EFL-12P, 25 Broadway, New York 4, N. Y.

(Continued on page 20)

Do You Need Help Over One Of These Danger Points?

- Company growth has created new management functions, or forced realignment of existing functions, with attendant organization problems.
- You expect the loss of key executives with no one to replace them.
- Costs in one of your departments are out of line.
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- Mergers or acquisitions require rearrangement of your personnel.

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INDUSTRIAL PROGRESS—(Continued)

Electric Industry to Increase Generating Capability to 187.9 Million Kilowatts By Year-end

DURING 1961 the nation's electric power industry will increase its generating capability by 13.0 million kilowatts, reaching a total of 187.9 million kilowatts by the end of the year. This and other evidence of vigor and economic stability of America's power industry was reported recently in the 30th Semi-Annual Electric Power Survey of the Edison Electric Institute.

This year's addition to U. S. generating capacity represents an increase of 7.5 per cent over the capability of 174.9 million kilowatts at the end of 1960. By the end of 1964, total capability is scheduled to reach 221.4 million kilowatts.

Survey Committee Chairman Arthur S. Griswold, vice president of The Detroit Edison Company, pointed out that the December 1961 peak load for the electric utility industry is expected to reach 144.1 million kilowatts—an increase of 8.3 per cent over the year's December peak of 133.0 million kilowatts. By the end of 1964, peak load for the total industry is expected to reach 177.4 million kilowatts.

The estimated annual gross margin of power supply over demand indicated for 1961 is 26.4 per cent. In 1964 it is expected that this will be reduced to 20 per cent.

Scheduled additions to electric generating capacity from the first of the year through 1965 and later will be 51,639,917 kilowatts. Additional units aggregating approximately 2.3 million kilowatts are reported to be in order with the manufacturers, although scheduled dates of operation have not been specifically established.

The long-range atomic power development program undertaken by the electric power industry, the Atomic Energy Commission, and the manufacturers of heavy power equipment is going steadily forward, the survey reports. Six nuclear power projects having a combined nominal rating of 393,000 kilowatts are already in operation. Investor-owned companies are participating in five of these, with a total capability of 388,000 kilowatts.

The EEI Power Survey has been made semi-annually since 1947. It includes forecasts of peak power demands and supply capabilities on a regional and national basis, as well as information on the manufacture of heavy electric power equipment.

The survey is prepared in co-operation with power systems throughout the United States and with principal manufacturers of heavy electric power equipment such as turbine-generators, boilers, and transformers.

Babcock & Wilcox Bulletin Discusses "Furnace Explosions"

FURNACE explosions are the subject of a 16-page illustrated bulletin issued by The Babcock & Wilcox Company's Boiler division, Barberton, Ohio.

Authored by G. W. Kessler, chief engineer of the division, the booklet analyzes the causes of 156 recorded furnace explosions, discusses the theory of explosions during flameouts, and presents practical recommendations for safe operating procedures.

Copies of the booklet designated, Bulletin E-101, entitled "Furnace Explosions" may be obtained by writing The Babcock & Wilcox Company, advertising department, 161 East 42nd St., New York 17, N. Y.

Delaware P&L To Install J-75 Jet Engine-Powered Generators

The nation's first J-75 jet engine-powered electrical generator—using natural gas as a fuel—will be installed by the Delaware Power & Light Company to serve electrical consumers in the Wilmington area. Details of this pioneering industrial step were announced jointly by Martin T. Gardner, president of the Delaware Power & Light Company, L. C. Mallet, general manager of Pratt & Whitney Aircraft division, United Aircraft Corporation, and a modified P&WA J-75 engine—the same powerplant used to power jet-engine modern commercial jet transports and military aircraft—will be harnessed to a generator. The complete power package, which is fully automated, will be housed in a small sound-proofed structure and will provide the Wilmington area with the additional electrical energy needed during "peak load" hours when consumers make extra demands on the power supply. The generating unit, designed by

the aircraft company in East Hartford, Conn., will produce 13,500 kilowatts. It will be installed on DP&L property at its Edge Moor station and is expected to be operational by late 1962, as augmentation for the larger steam-operated plants now in use.

The new application marks another in a series of pioneering efforts in the field of efficient power by the two companies.

Mr. Gardner, president of Delaware Power & Light Company, stated, "The installation of gas turbines will enable the company to postpone previously announced plans for the construction of a 150,000 kilowatt generating unit at our Edge Moor Power station."

United Aircraft's Pratt & Whitney Aircraft division long has been established as a world leader in the design and production of aircraft powerplants. It entered the industrial power field last year when it introduced the concept of using modified aircraft jet engines to perform industrial power tasks. In conjunction with the Cooper-Bessemer Corpora-

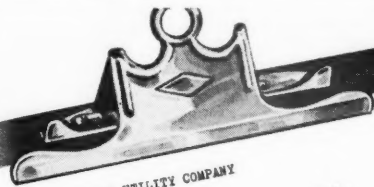
tion of Mount Vernon, Ohio, P&WA introduced the world's first jet-powered natural gas pumping installation at the Columbia Gulf Transmission Company's compressor station in Clementsville, Ky. There a modified P&WA J-57 engine is pushing natural gas through a large transmission line. The Hartford Electric Light Company (HELCO) also will have a modified J-57-powered electrical generator serving consumers in the Hartford, Conn., area by mid-1962. The Helco unit will produce 10,000 kilowatts.

The Delaware Power & Light Company installation, however, will be the first such use of the more powerful J-75 engine.

Gas Industry Executive Ties Future Growth to Research

THE gas industry is looking to its research laboratories to make this decade as successful as the 1950s, the American Gas Association's 43rd annual convention was told by William G. Hamilton, president of the

(Continued on page 22)



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Gas Appliance Manufacturers Association.

"The conveniences and modernity of today simply will not satisfy the people of tomorrow any more than a 1951 gas range would meet the demands of the homemaker of today," Mr. Hamilton said.

While many individual companies carry on specific research programs, only through a co-operative industry-wide program can the broad research be done which is essential to maintain a strong gas industry, the industry leader said.

"We can accomplish this vital research only through the single expedient of cooperative gas industry research programs," Mr. Hamilton asserted.

The speaker, who is also president of the American Meter Co., Philadelphia, stressed that co-operation is necessary in all areas of the gas industry. He said during the 1950s, the gas industry moved forward "largely because we pooled our talents, our efforts, and our money and welded ourselves into a striking force which could withstand the thrusts of the competitive giants which power the electric industry."

W. M. Elmer, president of the Independent Natural Gas Association of America, who addressed the same session, emphasized the importance of intra-industry understanding in order for the natural gas industry to continue its growth.

Mr. Elmer, who is also president of Texas Gas Transmission Corp., Owensboro, Ky., said this understanding is vital if the industry is to retain the continued support of its customers, its suppliers, and the investing public.

Turning to load-building, Mr. Elmer said, "One of the most important phases of load-building falls in the general category of improving the stature and recognition of the gas industry in the minds of the general public, the congress, other law-making groups and the investing public . . ." He added that continual criticism of any segment of the industry has a direct effect on the others.

Noting the industry's responsibility toward the consumer, Mr. Elmer pointed out that one of the priority projects was price stability of natural gas. He said that all segments of the industry should work more closely with the regulatory bodies to achieve this objective.

Ground-breaking Ceremonies Held for Plant Harlee Branch

GROUNDBREAKING ceremonies marking the beginning of construction for Plant Harlee Branch, the Georgia Power Company's most newly announced steam-electric generating plant, were held October 16th. Cost of the first unit will be \$42 million.

Generating capacity of the initial unit of the plant is scheduled for 250,000 kilowatts. The water site has the potential for the development of a plant with a capacity between 1½ and 2 million kilowatts.

When Plant Harlee Branch begins production in 1965, the Georgia Power Company will have 29 generating stations and a total capacity of more than 2,700,000 kilowatts. Plant McDonough, a 500,000-kilowatt installation being built 12 miles north of Atlanta, will be completed in 1964. The North Highlands hydroelectric plant, on the Chattahoochee river at Columbus, is being rebuilt with a generating capacity of 29,600 kilowatts. It will be in service in 1962. A third unit of 125,000 kilowatts under construction at Plant Mitchell near Albany will be in service in 1964.

Mr. Branch served as president of the Georgia Power Company from 1951 to 1957. He has been a director since 1953. President of The Southern Company since 1957 and a director since 1953, he also is a director and vice president of the Alabama, Gulf, and Mississippi Power Companies.

C. R. Braun, C. B. Graham Named To New Posts

APPOINTMENT of C. R. Braun to the new position of manager of marketing for the Atomic Energy Division has been announced by Allis-Chalmers.

Mr. Braun has been manager of the firm's nuclear power department—Greendale since January 1959. He is succeeded in that post by C. B. Graham, who has been chief engineer of the nuclear power department—Greendale since September 1956.

Mr. Braun joined Allis-Chalmers in 1940. He has specialized in the application, design and manufacture of central station and marine power plant equipment, and has developed special power plant equipment for the maritime commission and the U. S. Navy.

In 1952, he was granted a leave

of absence to serve as chief of Steam Turbine Section, Engine Turbine Division, National Production Authority, Washington, D. C.

He returned to Allis-Chalmers in 1953 as manager of the nuclear power section. In that position he was active in the development of the experimental boiling water reactor plant for Argonne National Laboratory.

On leave of absence from Allis-Chalmers, Mr. Braun in April 1954 became assistant division director of the reactor engineering division, Argonne National Laboratory. While there, he played an important part in the development of the Argonne power reactor (ALPR).

PEPCO Orders Two Huge B&W Boilers

AN order for two giant Universal Pressure boiler systems, capable of generating a combined total of 5 million pounds of steam per hour, has been awarded to The Babcock & Wilcox Company by Potomac Electric Power Company, of Washington, D. C., it was announced recently. R. Roy Dunn, Potomac's president and S. T. Mackenzie, B&W's president in charge of Boiler divisions.

The two B&W boilers, scheduled to go into operation in 1964-1965, highlight a \$105 million electric generating station to be built by Potomac Electric Power in Prince George's county, Maryland. The 670,000 kilowatt power plant will be called Chalk Point station.

Potomac Electric Power's Dickson station was rated by the Federal Power Commission in 1959 as the most efficient electric utility plant in the nation. Studies by Potomac indicated that a high-capacity boiler system designed to operate at 3500 lb./sq. in. pressure was the next logical step, further reducing the cost of its power generation, according to Mr. Dunn.

Accordingly, the company's order to B&W specifies two boilers, each designed to generate 2,500,000 lb. of steam at 3500 lb./sq. in. pressure. These are the 15th and 16th Universal Pressure boilers sold by B&W in the past four years.

The new Chalk Point boilers will develop a total of 670,000 kilowatts. This will increase Potomac's overall generating capability from 1,453,000 kilowatts to 2,123,000 kilowatts, and will increase its generating station area to five.

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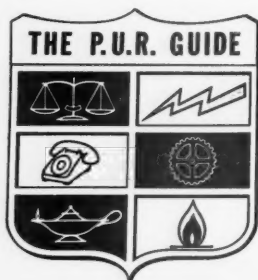
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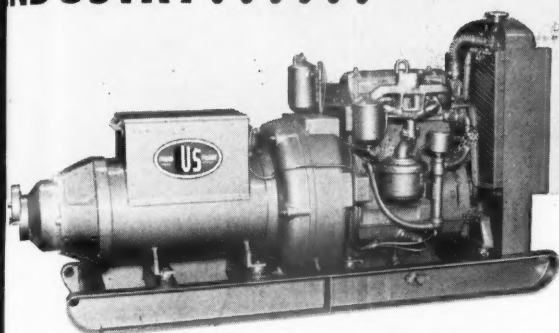
*Fortnightly advertisers not in this issue.

POWER SURETY

OF THE
COMMUNICATIONS
INDUSTRY.....

10 KW DIESEL MICRO POWER

WITH NEW "BRUSHLESS"
GENERATOR



MODEL MG10D-18

"NO-BREAK" MICRO POWER ENERGY IS USED...

- ⚡ at telephone central offices—carrier repeater stations.
- ⚡ on Microwave installations for communications, remote control, telemetering.
- ⚡ by public utilities for protective relaying, telemetering and load distribution.

U.S. MOTORS 10 KW DIESEL MICRO POWER functions either as a voltage stabilizer when power from the normal source is at usable, but uneven value—or as the independent power supply when there is a complete power failure. Regardless of the situation, critical communications equipment is assured a constant source of stable voltage electric power at all times. Micro Power, smoothly and with no break in required voltage, transfers the load back when commercial power is restored, at the same time continuing in its full time role of eliminating voltage droop, drop, or break.

10 KW DIESEL MICRO POWER FEATURES —

- no brushes, commutator, or slip rings to service or replace with new brushless generator
- quirl cage motor with less than one percent slip
- conservatively rated bearings
- diodes arranged for easy access
- voltage adjusting potentiometer
- magnetic amplifier regulator mounted directly on unit
- overvoltage protection

authorized sales and service
representatives in...

Chicago, Ill.
Dallas, Tex.
Denver, Colo.

Detroit, Mich.
Jacksonville, Fla.
Jersey City, N. J.

Los Angeles, Calif.
Portland, Ore.
San Francisco, Calif.



UNITED STATES MOTORS CORPORATION

102 West Fifth Avenue

Oshkosh, Wisconsin

New steam-gas cycle=

4% gain in generating efficiency



Oklahoma Gas and Electric Company is pioneering the first large steam-gas turbine-generator combined installation.

This utility has already logged years of successful operation with General Electric gas turbines in its Isle Generating Station.

Destined for OG&E's Horseshoe Station, the new 237,000-kilowatt steam-gas cycle addition will be placed in service in 1963. Its maximum design efficiency will be 4% better than a comparable conventional steam cycle. Realizing the dual role of the gas turbine.

First, the gas turbine supplies power for its own generator. With 1600 F inlet temperature it develops 26,450 watts.

And second, its exhaust gases provide high-temperature combustion air for the boiler supplying its steam turbine partner.

The gas turbine can be used in combination with a steam turbine regardless of steam conditions. Through "temperature topping" it boosts performance of the entire plant by increasing the maximum temperature at which power is generated.

Gas burning combined-cycle plants employ conventional gas turbines, steam turbines, and boilers available today . . . to help reduce the cost of power generation.

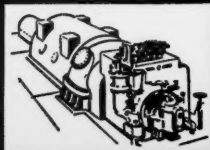
Progress Is Our Most Important Product

GENERAL  ELECTRIC

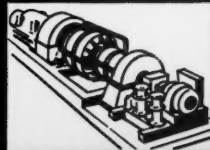
General Electric
Turbine-Generators
Help Keep
Power Costs Low



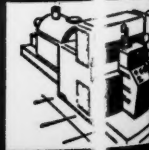
Steam turbine-generators
for large blocks of power



Steam turbine-generators
100,000 kw and lower



Gas turbines for peaking,
base load, combined cycles



Most efficient power
plants available today